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TForce P965 Deluxe / TForce 965PT
Setup Manual

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CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.

1.2 PACKAGE CHECKLIST

-  FDD Cable X 1
-  HDD Cable X 1
-  Rear I/O Panel for ATX Case X 1
-  User's Manual X 1
-  Fully Setup Driver CD X 1
-  Serial ATA Cable X 4 (optional)
-  Serial ATA Power Cable X 4 (optional)
-  USB 2.0 Cable X1 (optional)
-  S/PDIF out Cable X 1 (optional)

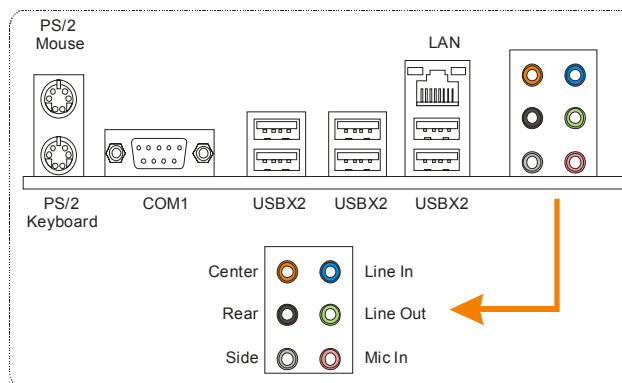
1.3 MOTHERBOARD FEATURES

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU	LGA 775 Intel Core2Duo / Pentium D / Pentium 4 / Celeron D processor up to 3.8 GHz Supports Hyper Transport/ Execute Disable Bit/ Enhanced Intel SpeedStep®/ Intel Extended Memory 64 technology	LGA 775 Intel Core2Duo / Pentium D / Pentium 4 / Celeron D processor up to 3.8 GHz Supports Hyper Transport/ Execute Disable Bit/ Enhanced Intel SpeedStep®/ Intel Extended Memory 64 technology
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipset	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Super I/O	ITE IT8718F Provides the most commonly used legacy Super I/O functionality. Low Pin Count Interface Environment Control initiatives, H/W Monitor Fan Speed Controller ITE's "Smart Guardian" function	ITE IT8718F Provides the most commonly used legacy Super I/O functionality. Low Pin Count Interface Environment Control initiatives, H/W Monitor Fan Speed Controller ITE's "Smart Guardian" function
Main Memory	DIMM Slots x 4 Each DIMM supports 256MB / 512MB / 1GB / 2GB DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 memory module Supports DDR2 533 / 667 / 800 Registered DIMM and ECC DIMM is not supported	DIMM Slots x 4 Each DIMM supports 256MB / 512MB / 1GB / 2GB DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 memory module Supports DDR2 533 / 667 / 800 Registered DIMM and ECC DIMM is not supported
IDE	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,
SATA 2	Integrated Serial ATA Controller Data transfer rates up to 3.0 Gb/s. SATA Version 2.0 specification compliant.	Integrated Serial ATA Controller Data transfer rates up to 3.0 Gb/s. SATA Version 2.0 specification compliant.
LAN	Realtek RTL 8110SC / RTL8100C (optional) 10 / 100 Mb/s and 1Gb/s auto negotiation (Gigabit bandwidth is for RTL 8110SC only) Half / Full duplex capability	Realtek RTL 8110SC 10 / 100 Mb/s and 1Gb/s auto negotiation Half / Full duplex capability
Sound Codec	ALC883 / ALC861 (optional) 8+2 channels audio out High Definition Audio	ALC883 8+2 channels audio out High Definition Audio
Slots	PCI slot x3 PCI Express x 16 slot x1 PCI Express x 4 slot x1 PCI Express x 1 slot x1	PCI slot x3 PCI Express x 16 slot x1 PCI Express x 4 slot x1 PCI Express x 1 slot x1
On Board Connector	Floppy connector x1 Printer Port Connector x1	Floppy connector x1 Printer Port Connector x1

TForce P965 Deluxe/TForce 965PT

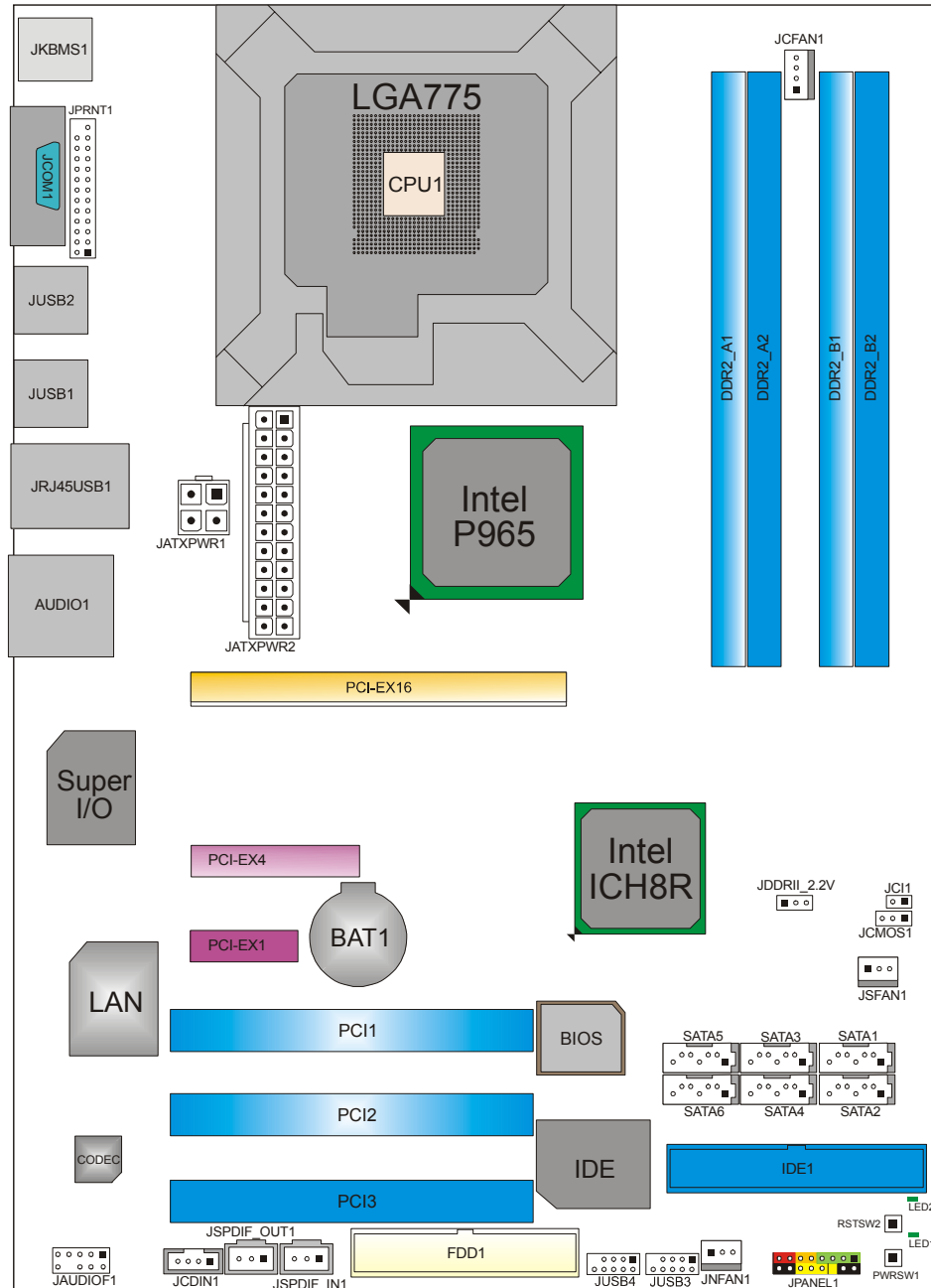
	TForce P965 Deluxe		TForce 965PT	
	IDE Connector	x1	IDE Connector	x1
	SATA Connector	x6	SATA Connector	x4
	Front Panel Connector	x1	Front Panel Connector	x1
	Front Audio Connector	x1	Front Audio Connector	x1
	CD-in Connector	x1	CD-in Connector	x1
	S/PDIF out connector	x1	S/PDIF out connector	x1
	S/PDIF in connector	x1	S/PDIF in connector	x1
	CPU Fan header	x1	CPU Fan header	x1
	System Fan header	x2	System Fan header	x2
	Chassis open header	x1	Clear CMOS header	x1
	Clear CMOS header	x1	USB connector	x2
	USB connector	x2	Power Connector (24pin)	x1
	Power Connector (24pin)	x1	Power Connector (4pin)	x1
	Power Connector (4pin)	x1		
Back Panel I/O	PS/2 Keyboard	x1	PS/2 Keyboard	x1
	PS/2 Mouse	x1	PS/2 Mouse	x1
	Serial Port	x1	Serial Port	x1
	LAN port	x1	LAN port	x1
	USB Port	x6	USB Port	x6
	Audio Jack	x6	Audio Jack	x6
Board Size	220 (W) x 305 (L) mm		220 (W) x 305 (L) mm	
	ATX form Factor		ATX form Factor	
Special Feature	RAID 0 / 1 / 5 / 1+0 support			
OS Support	Windows 2000 / XP		Windows 2000 / XP	
	Biostar Reserves the right to add or remove support for any OS with or without notice.		Biostar Reserves the right to add or remove support for any OS with or without notice.	

1.4 REAR PANEL CONNECTORS



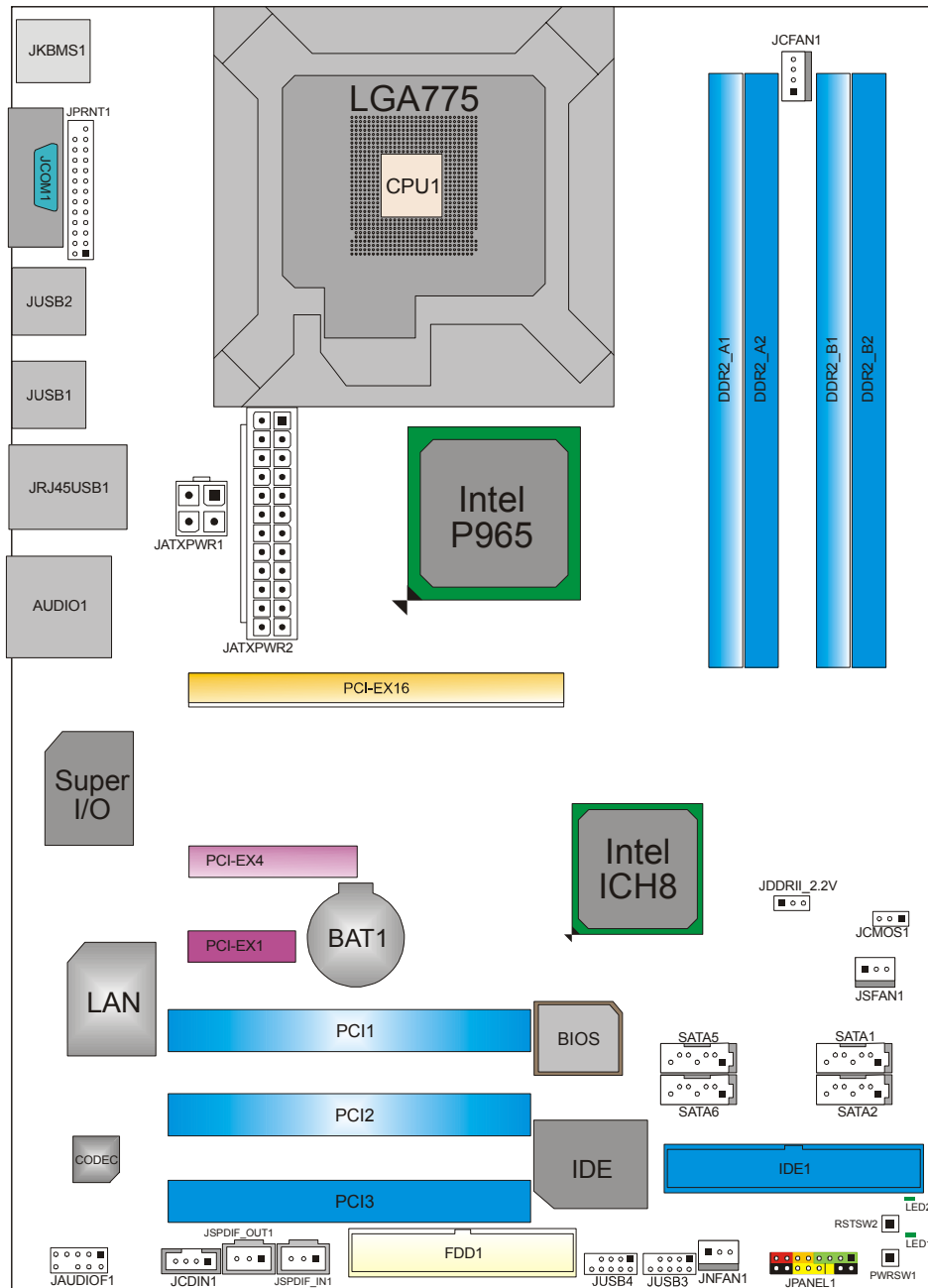
Since the audio chip supports Intel High Definition Audio Specification, the function of each audio jack can be defined by software. The input / output function of each audio jack listed above represents the default setting. However, when connecting external microphone to the audio port, please use the Line In (blue) and Mic In (pink) audio jack.

1.5 MOTHERBOARD LAYOUT(TFORCE P965 DELUXE)



Note: ■ represents the 1st pin.

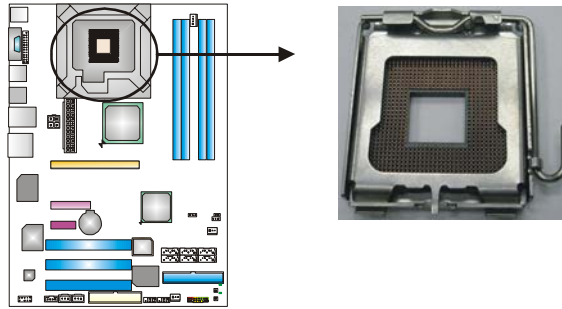
1.6 MOTHERBOARD LAYOUT(TForce 965PT)



Note: ■ represents the 1st pin.

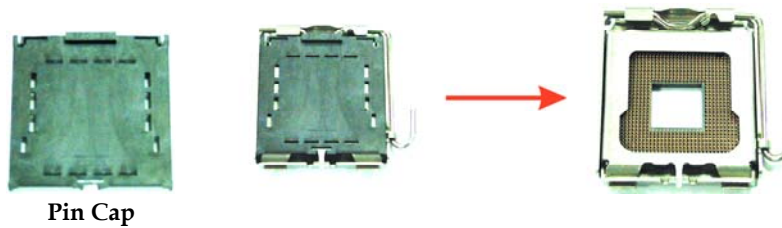
CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

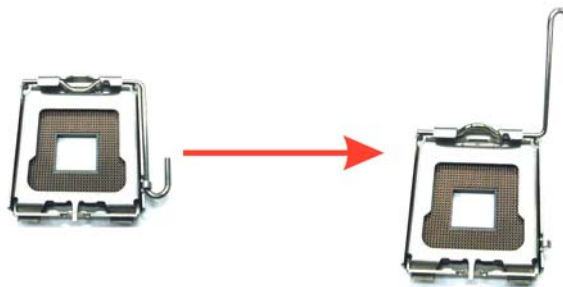


Special Notice:

Remove Pin Cap before installation, and make good preservation for future use. When the CPU is removed, cover the Pin Cap on the empty socket to ensure pin legs won't be damaged.



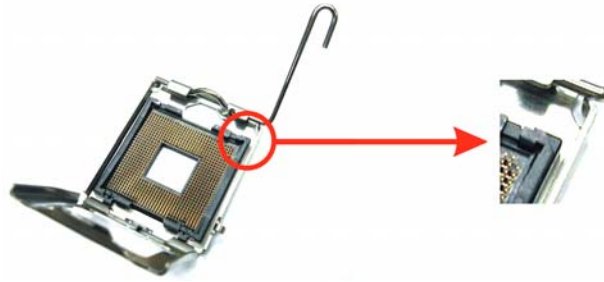
Step 1: Pull the socket locking lever out from the socket and then raise the lever up to a 90-degree angle.



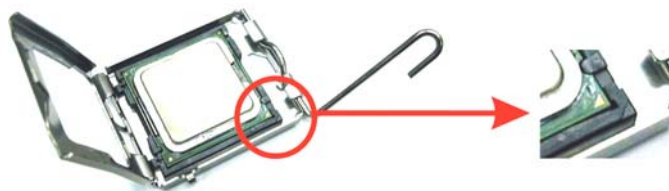
TForce P965 Deluxe/TForce 965PT

Step 2: Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

Step 2-1:



Step 2-2:



Step 3: Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.

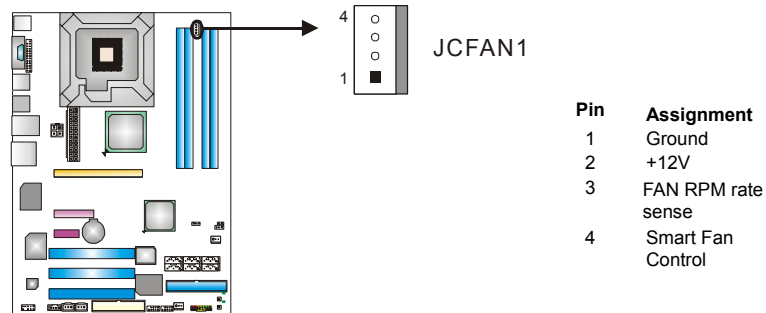


Step 4: Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the JCFAN1. This completes the installation.

2.2 FAN HEADERS

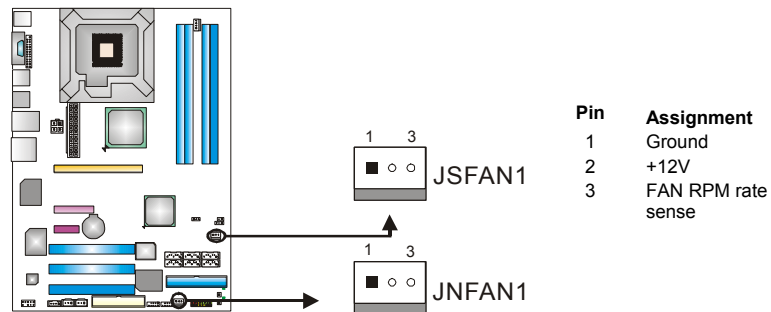
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: CPU Fan Header



JSFAN1: System Fan Header

JNFAN1: Northbridge Fan Header

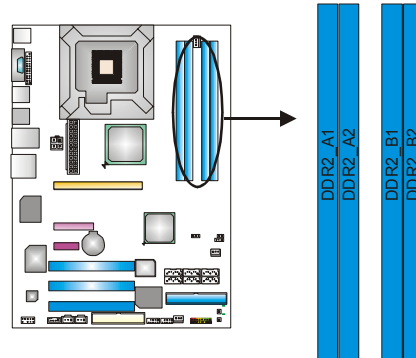


Note:

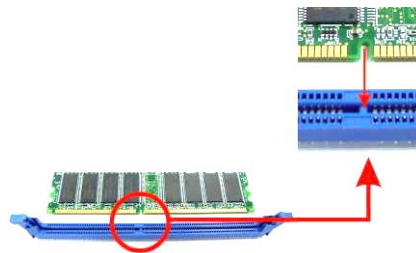
The JNFAN1 and JSFAN1 support 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

A. Memory Modules



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



B. Memory Capacity

DIMM Socket Location	DDR Module	Total Memory Size
DDR2_A1	256MB/512MB/1GB/2GB	Max is 8GB.
DDR2_A2	256MB/512MB/1GB/2GB	
DDR2_B1	256MB/512MB/1GB/2GB	
DDR2_B2	256MB/512MB/1GB/2GB	

B. Dual Channel Memory installation

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

Install memory module of the same density in pairs, shown in the following table.

Dual Channel Status	DDR2_A1	DDR2_A2	DDR2_B1	DDR2_B2
Enabled	O	X	O	X
Enabled	X	O	X	O
Enabled	O	O	O	O

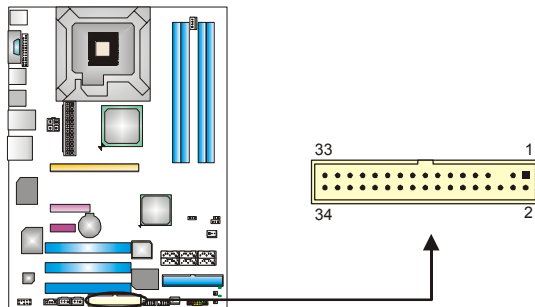
(O means memory installed, X means memory not installed.)

The DRAM bus width of the memory module must be the same (x8 or x16)

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

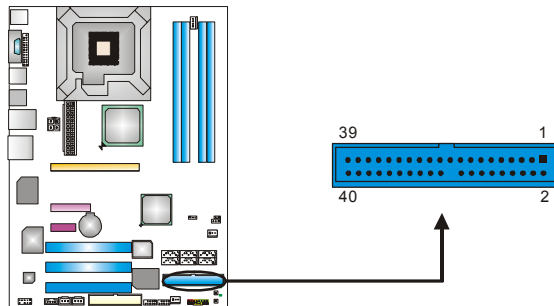
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1: Hard Disk Connector

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

The IDE connector can connect a master and a slave drive, so you can connect up to two hard disk drives.



PCI-Ex16: PCI-Express x16 Slot

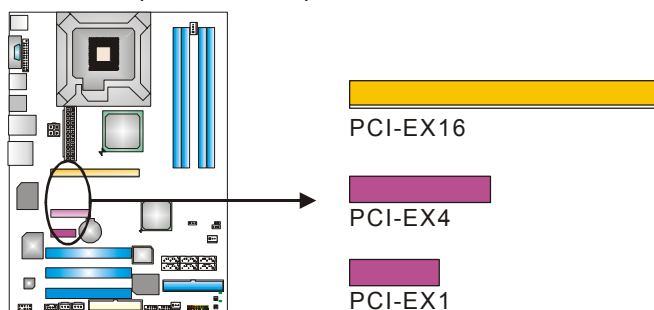
- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.

PCI-EX4: PCI-Express x4 Slot

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 1GB/s simultaneously per direction, for an aggregate of 2GB/s totally.

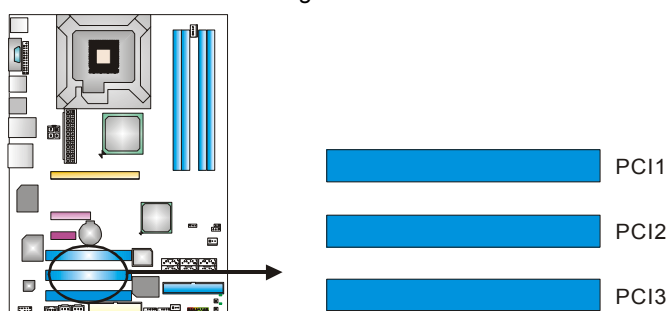
PCI-EX1: PCI-Express Slot

- PCI-Express 1.0a compliant.



PCI1~PCI3: Peripheral Component Interconnect Slots

This motherboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



Pin opened



Pin closed

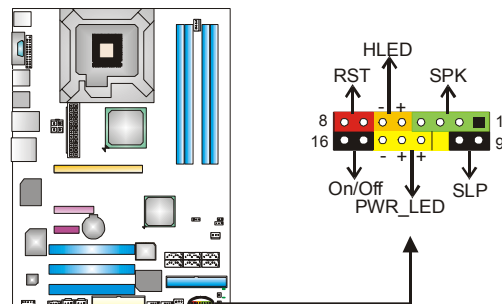


Pin1-2 closed

3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

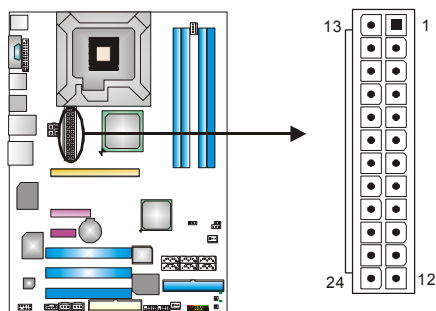
This 24-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button and speaker connection. It allows user to connect the PC case's front panel switch functions.



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	Sleep control	Sleep button
2	N/A		10	Ground	
3	N/A		11	N/A	N/A
4	Speaker	Hard drive LED	12	Power LED (+)	Power LED
5	HDD LED (+)		13	Power LED (+)	
6	HDD LED (-)	Reset button	14	Power LED (-)	Power-on button
7	Ground		15	Power button	
8	Reset control		16	Ground	

ATX Power Source Connector: JATXPWR2

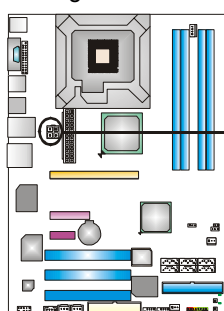
JATXPWR2 allows user to connect 24-pin power connector on the ATX power supply.



Pin	Assignment	Pin	Assignment
13	+3.3V	1	+3.3V
14	-12V	2	+3.3V
15	Ground	3	Ground
16	PS_ON	4	+5V
17	Ground	5	Ground
18	Ground	6	+5V
19	Ground	7	Ground
20	NC	8	PW_OK
21	+5V	9	Standby Voltage+5V
22	+5V	10	+12V
23	+5V	11	+12V
24	Ground	12	+3.3V

JATXPWR1: ATX Power Source Connector

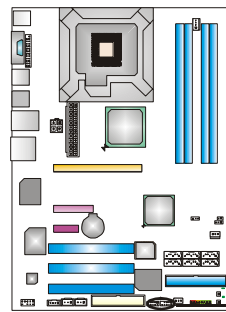
By connecting this connector, it will provide +12V to CPU power circuit.



Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

JUSB3/JUSB4: Headers for USB 2.0 Ports at Front Panel

This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.

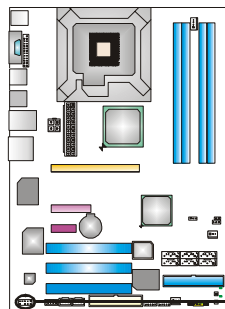


Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	Key
10	NC

JUSB4 JUSB3

JAUDIOF1: Front Panel Audio Header

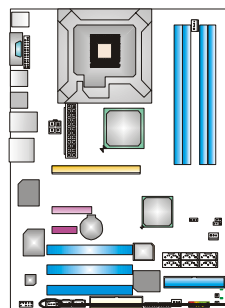
This header allows user to connect the front audio output cable with the PC front panel. It will disable the output on back panel audio connectors.



Pin	Assignment
1	Mic in/center
2	Ground
3	Mic power/Bass
4	Audio power
5	Right line out/ Speaker out Right
6	Right line out/ Speaker out Right
7	Reserved
8	Key
9	Left line out/ Speaker out Left
10	Left line out/ Speaker out Left

JCDIN1: CD-ROM Audio-in Connector

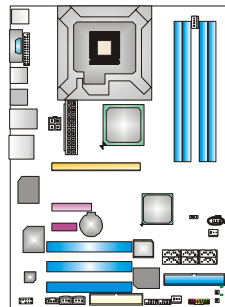
This connector allows user to connect the audio source from the variety devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc..



Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.



Pin 1-2 Close:
Normal Operation (default).



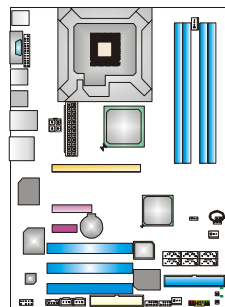
Pin 2-3 Close:
Clear CMOS data.

※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to "Pin 2-3 close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 close".
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

JCI1: Chassis Open Header(Only for TForce P965 Deluxe)

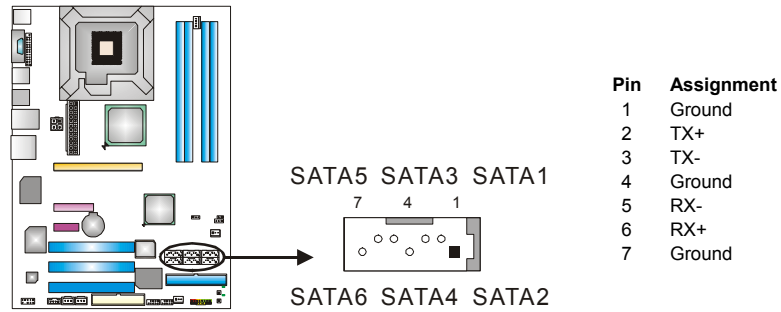
This connector allows system to monitor PC case open status. If the signal has been triggered, it will record to the CMOS and show the message on next boot-up.



Pin	Assignment
1	Case open signal
2	Ground

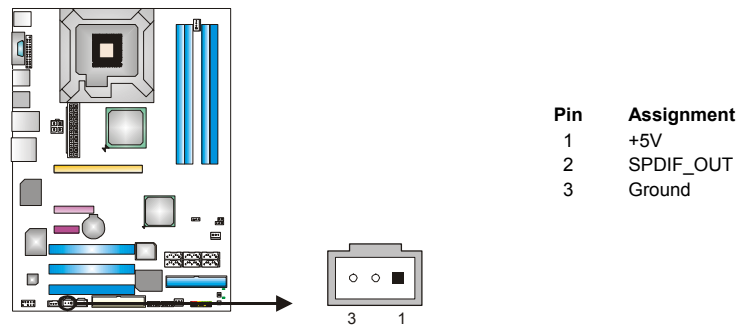
SATA1~SATA6: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 4 or 6 channels SATA interface, it satisfies the SATA 2.0 spec and with transfer rate of 3.0Gb/s.



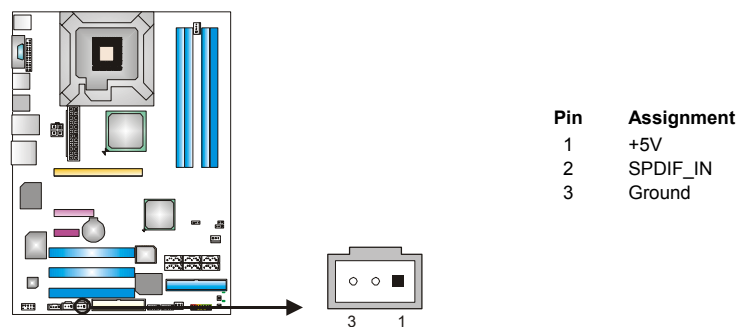
JSPDIF_OUT1: Digital Audio-out Connector

This connector allows user to connect the PCI bracket SPDIF output header.



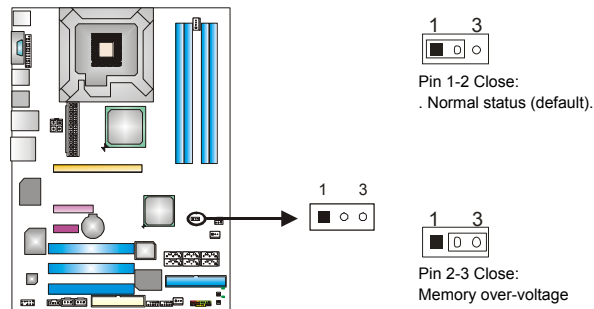
JSPDIF_IN1: Digital Audio-in Connector

This connector allows user to connect the PCI bracket SPDIF input header.



Header for Memory Over-voltage: JDDRII_2.2V

When processing Memory over-voltage, please place the jumper to pin 2-3 Closed. The Default setting is Pin 1-2 Closed.



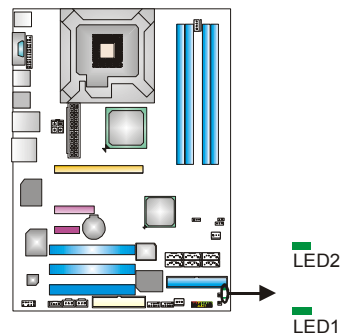
Note:

1. When "JDDRII_2.2V" jumper cap is placed on Pin 1-2, memory voltage can be manually adjusted under CMOS setup.
2. When "JDDRII_2.2V" jumper cap is placed on Pin 2-3, memory voltage will be fixed at 2.2V automatically, and can't be adjusted under COMS setup.

Before setting memory over-voltage, please ensure that your DDR supports up to 2.2V. (Consulting your DDR supplier)

On-Board LED Indicators

There are 2 LED indicators on the motherboard to show system status.



LED1 and LED2:

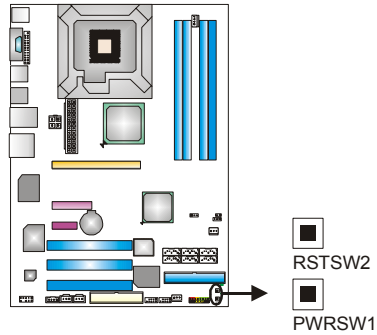
These 2 LED indicate system power on diagnostics.

Please refer to the table below for different messages:

LED1	LED2	Message
ON	ON	Normal
ON	OFF	VGA Error
OFF	ON	Memory Error
OFF	OFF	Abnormal: CPU / Chipset error.

On-Board Buttons

There are 2 on-board buttons.



PWRSW1:

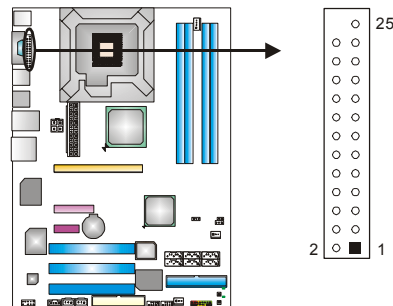
This is an on-board Power Switch button.

RSTSW2:

This is an on-board Reset button.

JPRNT1: Printer Port Connector

This header allows you to connector printer on the PC.



Pin	Assignment	Pin	Assignment
1	-Strobe	14	Ground
2	-ALF	15	Data 6
3	Data 0	16	Ground
4	-Error	17	Data 7
5	Data 1	18	Ground
6	-Init	19	-ACK
7	Data 2	20	Ground
8	-Scltin	21	Busy
9	Data 3	22	Ground
10	Ground	23	PE
11	Data 4	24	Ground
12	Ground	25	SCLT
13	Data 5		

CHAPTER 4: INTEL RAID FUNCTIONS (FOR TFORCE P965 DELUXE)

4.1 OPERATION SYSTEM

Supports Windows XP Home/Professional Edition, and Windows 2000 Professional.

4.2 RAID ARRAYS

ICH8R supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

Spanning (JBOD): JBOD provides a method for combining drives of different sizes in to one large disk.

RAID 5: RAID 5 provides fault tolerance and better utilization of disk capacity.

RAID 1+0: RAID 1+0 combines the techniques used in RAID 0 and RAID 1.

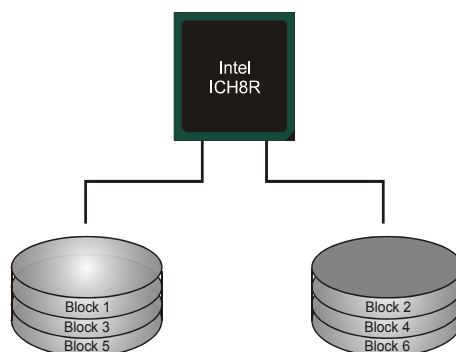
4.3 How RAID WORKS

RAID 0:

The controller “stripes” data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- **Drives:** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- **Uses:** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- **Benefits:** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- **Drawbacks:** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- **Fault Tolerance:** No.



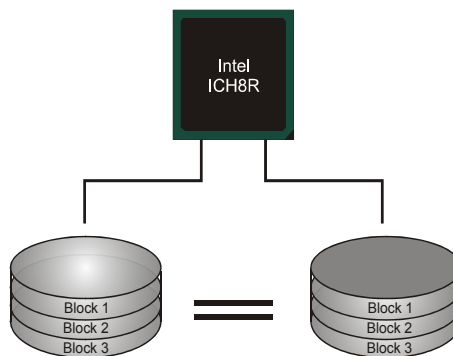
RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- **Drives:** Minimum 2, and maximum is 2.
- **Uses:** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- **Benefits:** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- **Drawbacks:** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- **Fault Tolerance:** Yes.

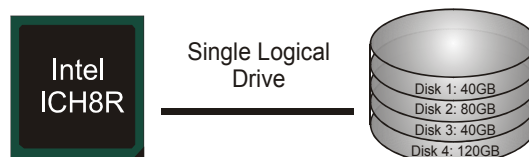


Spanning (JBOD):

JBOD stands for “Just a Bunch of Disks”. Each drive is accessed as if it were on a standard SCSI host bus adapter. This is useful when a single drive configuration is needed, but it offers no speed improvement or fault tolerance.

Features and Benefits

- **Uses:** JBOD works best if you have odd sized drives and you want to combine them to make one big drive.
- **Benefits:** JBOD provides the ability to combine odd size drives using all of the capacity of the drives.
- **Drawbacks:** Decreases performance because of the difficulty in using drives concurrently.
- **Fault Tolerance:** Yes.

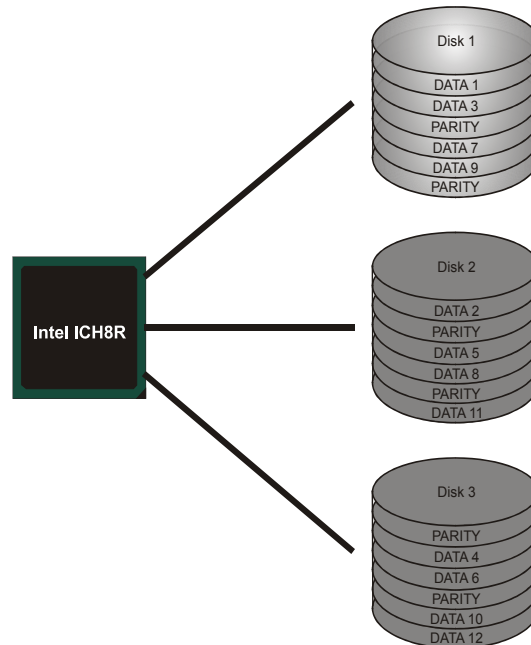


RAID 5:

RAID 5 stripes both data and parity information across three or more drives. It writes data and parity blocks across all the drives in the array. Fault tolerance is maintained by ensuring that the parity information for any given block of data is placed on a different drive from those used to store the data itself.

Features and Benefits

- **Drives: Minimum 3.**
- **Uses: RAID 5 is recommended for transaction processing and general purpose service.**
- **Benefits: An ideal combination of good performance, good fault tolerance, and high capacity and storage efficiency.**
- **Drawbacks: Individual block data transfer rate same as a single disk. Write performance can be CPU intensive.**
- **Fault Tolerance: Yes.**

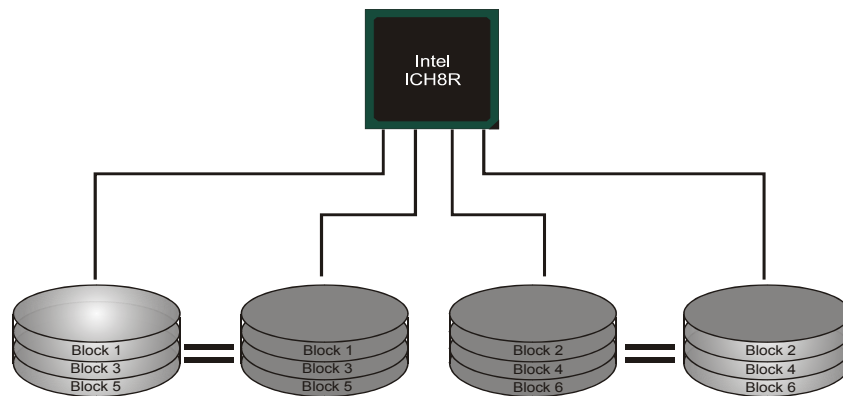


RAID 1+0:

RAID 1 drives can be striped using RAID 0 techniques. Resulting in a RAID 1+0 solution for improved resiliency, performance and rebuild performance.

Features and Benefits

- **Drives:** Minimum 4, and maximum is 6 or 8, depending on the platform.
- **Benefits:** Optimizes for both fault tolerance and performance, allowing for automatic redundancy. May be simultaneously used with other RAID levels in an array, and allows for spare disks.
- **Drawbacks:** Requires twice the available disk space for data redundancy, the same as RAID level 1.
- **Fault Tolerance:** Yes.



※ For more detailed setup information, please refer to the Driver CD

CHAPTER 5: OVERCLOCK QUICK GUIDE

5.1 T-POWER INTRODUCTION

Biostar T-Power is a whole new utility that is designed for overclock users. Based on many precise tests, *Biostar Engineering Team* (BET) has developed this ultimate overclock engine to raise system performance. No matter whether under BIOS or Windows interface, *T-Power* is able to present the best system state according to users' overclock setting.

T-Power BIOS Features:

- Overclocking Navigator Engine (O.N.E.)
- CMOS Reloading Program (C.R.P.)
- Memory Integration Test (M.I.T., under Overclock Navigator Engine)
- Integrated Flash Program (I.F.P.)
- Smart Fan Function (under PC Health Status)
- Self Recovery System (S.R.S)

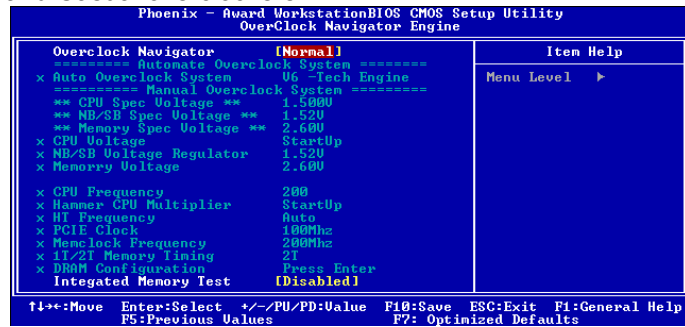
T-Power Windows Feature:

- Hardware Monitor
- Overclock Engine
- Smart Fan Function
- Life Update

5.2 T-POWER BIOS FEATURE

A. Overclocking Navigator Engine (O.N.E.):

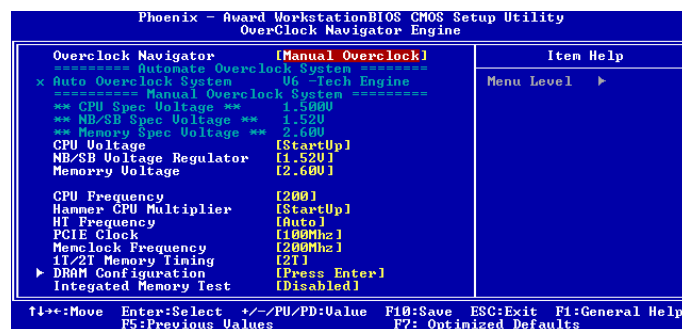
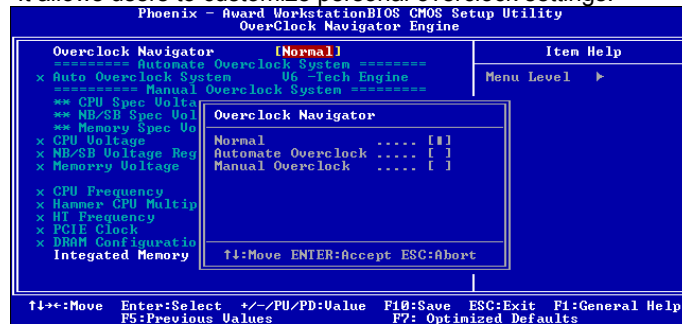
ONE provides two powerful overclocking engines: MOS and AOS for both Elite and Casual overclockers.



Manual Overclock System (M.O.S.)

MOS is designed for experienced overclock users.

It allows users to customize personal overclock settings.



CPU Overclock Setting:

CPU Voltage:

This function will increase CPU stability when overclocking. However, the CPU temperature will increase when CPU voltage is increased.

Choices: The range is from 1.2V to 1.725V, with an interval of 0.025V.

CPU Frequency:

CPU Frequency is directly in proportion to system performance. To maintain the system stability, CPU voltage needs to be increased also when raising CPU frequency.

Choices: This range is from 200 to 450, with an interval of 1MHz.

Memory Overclock Setting:

Memory Voltage:

This function will increase memory stability when overclocking.

Choices: The range is from 1.85V to 2.0V, with an interval of 0.05V.

Memclock Frequency:

To get better system performance, sometimes downgrading the memory frequency is necessary when CPU frequency is adjusted over the upper limit.

Choices: DDR2 400, DDR2 533, DDR2 667, DDR2 800 (MHz).

PCI-Express Overclock Setting:

PCI-E Clock:

It helps to increase VGA card performance.

Choices: The range is from 100 to 145, with an interval of 1MHz.

Chipset Overclock Setting:

NB/SB Voltage Regulator:

This function will increase chipset stability when overclocking.

Choices: 1.52V, 1.60V, 1.68V, 1.76V.

HT Frequency:

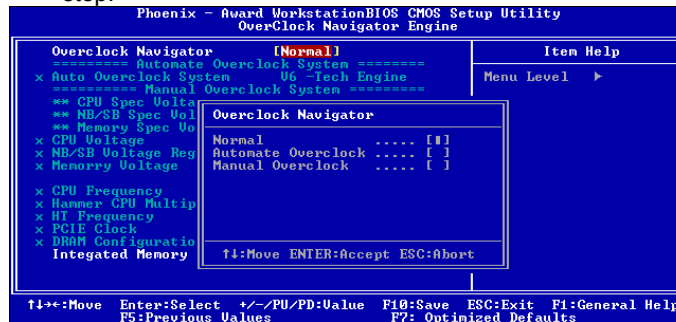
We recommend users to set this item at "x4" when overclocking.

Choices: x1, x2, x3, x4, x5, Auto.

Motherboard Manual

Automatic Overclock System (A.O.S.)

For beginners in overclock field, BET had developed an easy, fast, and powerful feature to increase the system performance, named A.O.S. Based on many tests and experiments, A.O.S. provides 3 ideal overclock configurations that are able to raise the system performance in a single step.



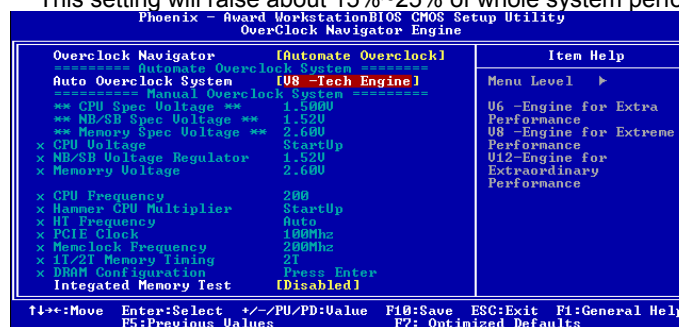
V6 Tech Engine:

This setting will raise about 10%~15% of whole system performance.



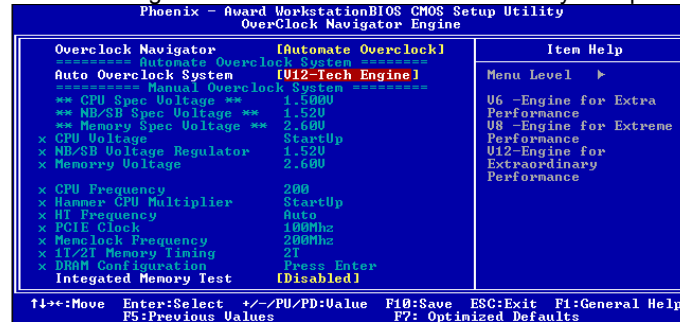
V8 Tech Engine:

This setting will raise about 15%~25% of whole system performance.



V12 Tech Engine:

This setting will raise about 25%~30% of whole system performance.

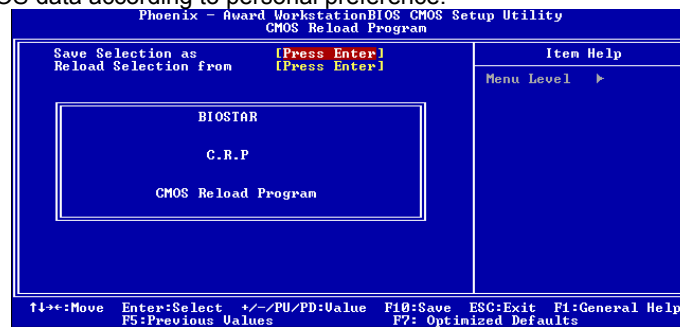
**B. CMOS Reloading Program (C.R.P.):**

It allows users to save different CMOS settings into BIOS-ROM.

Users are able to reload any saved CMOS setting for customizing system configurations.

Moreover, users are able to save an ideal overclock setting during overclock operation.

There are 50 sets of record addresses in total, and users are able to name the CMOS data according to personal preference.



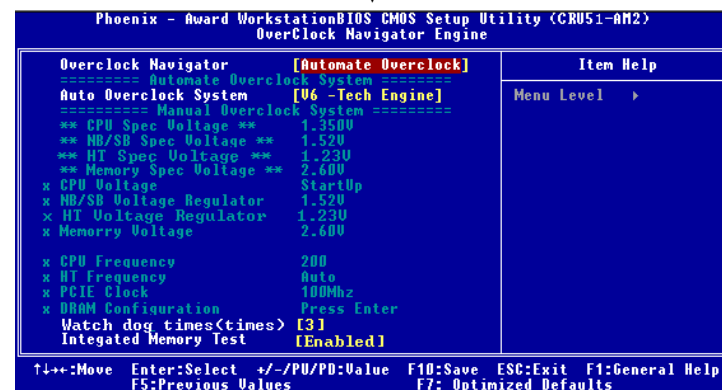
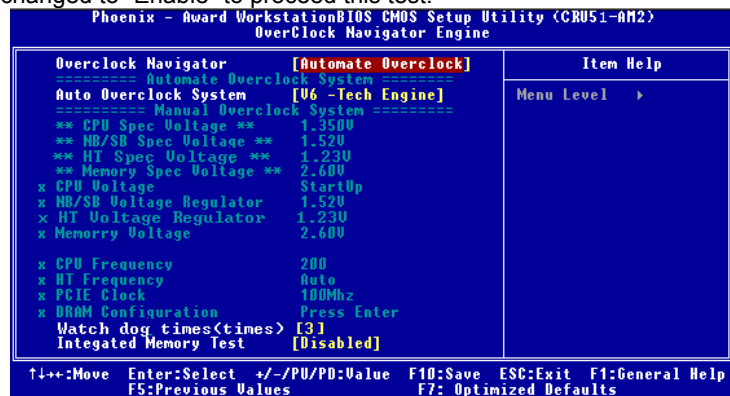
C. Memory Integration Test (M.I.T.):

This function is under “Overclocking Navigator Engine” item.

MIT allows users to test memory compatibilities, and no extra devices or software are needed.

Step 1:

The default setting under this item is “Disabled”; the condition parameter should be changed to “Enable” to proceed this test.



Step 2:

Save and Exit from CMOS setup and reboot the system to activate this test.

Run this test for 5 minutes (minimum) to ensure the memory stability.

Step 3:

When the process is done, change the setting back from “Enable” to “Disable” to complete the test.

D. Self Recovery System (S.R.S.):

This function can't be seen under T-Power BIOS setup; and is always on whenever the system starts up.

However, it can prevent system hang-up due to inappropriate overclock actions.

When the system hangs up, S.R.S. will automatically log in the default BIOS setting, and all overclock settings will be re-configured.

E. Integrated Flash Program (I.F.P.):

IFP is a safe and quick way to upgrade BIOS.

Step 1:

Go to Biostar website (<http://www.biostar.com.tw>) to download the latest BIOS file. Then, save the file into a floppy disk.

Step 2:

Insert the floppy disk and reboot the system to get into CMOS screen.

Step 3:

Select the item "Integrated Flash Program" to get the following frame and choose the BIOS file downloaded in step 1.

**Step 4:**

Press "Enter" key to start BIOS file loading, and BIOS updating will process automatically.

Step 5:

When the BIOS update is completed, press YES to the message "Flash done, Reset system", and the system will reboot automatically to finish the process.

Advise:

You can update the system BIOS by simply pressing "Enter" key for three times.

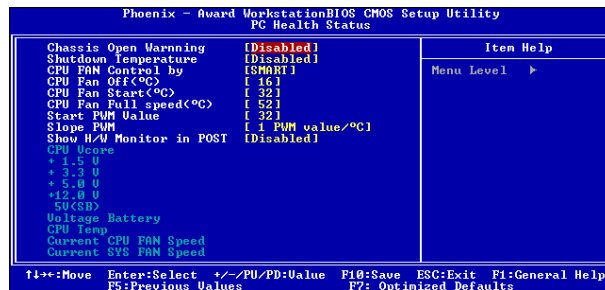
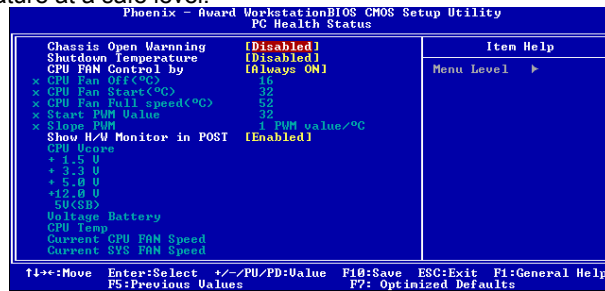
F. Smart Fan Function:

Smart Fan Function is under “PC Health Status”.

This is a brilliant feature to control CPU Temperature vs. Fan speed.

When enabling Smart Fan function, Fan speed is controlled automatically by CPU temperature.

This function will protect CPU from overheat problem and maintain the system temperature at a safe level.



CPU Fan Off <C>:

If the CPU temperature is lower than the set value, the CPU fan will turn off. The range is from 0°C~127°C, with an interval of 1°C.

Choices: 16°C (default).

CPU Fan Start <C>

The CPU fan starts to work when CPU temperature arrives to this set value. The range is from 0°C~127°C, with an interval of 1°C.

Choices: 32°C (default).

CPU Fan Full speed <C>

When CPU temperature arrives to the set value, the CPU fan will work under Full Speed. The range is from 0°C~127°C, with an interval of 1°C.

Choices: 52°C (default).

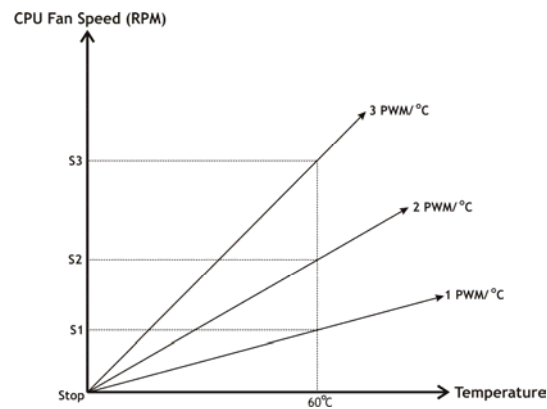
Start PWM Value

When CPU temperature arrives to the set value, the CPU fan will work under Smart Fan Function mode. The range is from 0~127, with an interval of 1.

Choices: **32** (default).

Slope PWM

Choices: 1 PWM Value/°C (default), 2 PWM Value/°C, 4 PWM Value/°C, 8 PWM Value/°C, 16 PWM Value/°C, 32 PWM Value/°C, 64 PWM Value/°C.



S1: CPU temperature is 60°C, and PWM value is 1 PWM/°C.

S2: CPU temperature is 60°C, and PWM value is 2 PWM/°C.

S3: CPU temperature is 60°C, and PWM value is 3 PWM/°C.

Increasing the value of slope PWM will raise the speed of CPU fan.

As in above diagram, when the CPU temperature reaches 60°C, the CPU fan speed for 3 PWM/°C is higher than 1 PWM/°C ($S1 < S2 < S3$).

5.3 T-POWER WINDOWS FEATURE

A. Hardware Monitor:

T-Power Hardware monitor allows users to monitor system voltage, temperature and fan speed accordingly.

Additionally, a rescue action will be taken by the program automatically while the system faces an abnormal condition. The program will trigger an alarm or shut down the system when unpredictable errors occur. All the monitoring items are illustrated by a waveform diagram.



Hardware Monitor Toolbar



i. Start-up Setting

Click on this item to run Hardware Monitor Program when the Windows starts-up.

ii. Dialogue-Box Setting

Click on this item to pop-up warning dialogue-box when PC system is abnormal.

iii. Exit

Click on this item to exit Hardware Monitor Program.

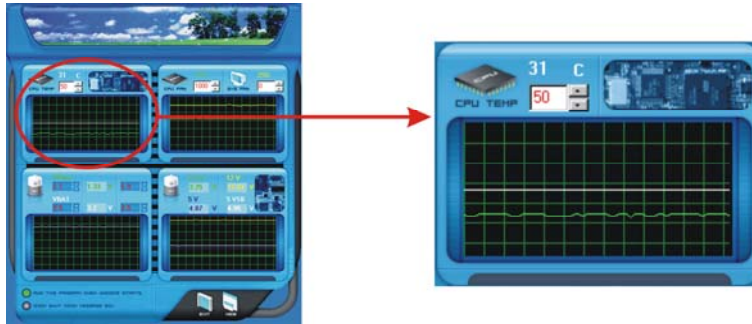
iv. Hide


Click on this item to hide this program in system tray. When hiding the program, there will be a check icon in the system tray.





CPU Temperature

This column configures the CPU temperature. There is a waveform to represent the status of CPU temperature.

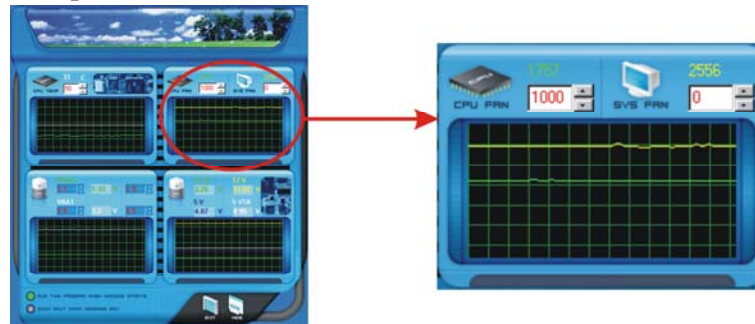



By adjusting , users can easily configure the upper limit of CPU temperature for system operating.

In this diagram, the white line represents the upper limit which user-set for CPU temperature and the green line shows present CPU temperature.



If the CPU temperature is higher than the upper limit, the status line color will change from green to red, and a warning sound will alert you. Also, the system tray icon  would change to .

FAN Speed

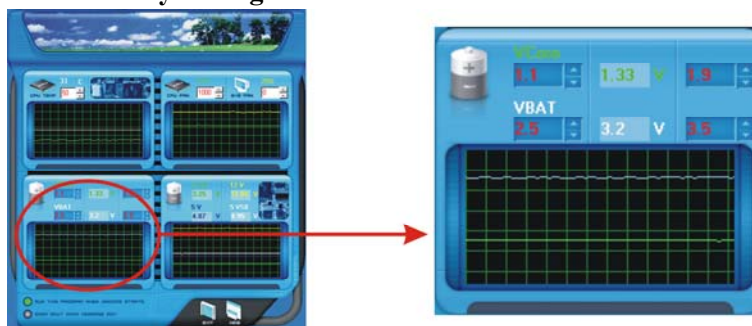


By adjusting , users can easily configure the lower limit of the fan speed.

In this diagram, the green line shows present CPU Fan speed, and the yellow line shows System Fan speed (if any).


If any one of the fans speeds is lower than the set value, the status line will change into a red warning line, and the program will trigger an alarm system automatically. Also, the system tray icon  would change to .



CPU/Battery Voltage



i. VCore


This item displays the CPU voltage, represented by a light blue line.



Users can set the upper and lower limit by adjusting  to monitor the CPU operating voltage.

If CPU voltage is higher or lower than the set value, the status line will change into a red warning line, and a warning sound will alert you. Also, the system tray icon  will change to .

ii. VBAT

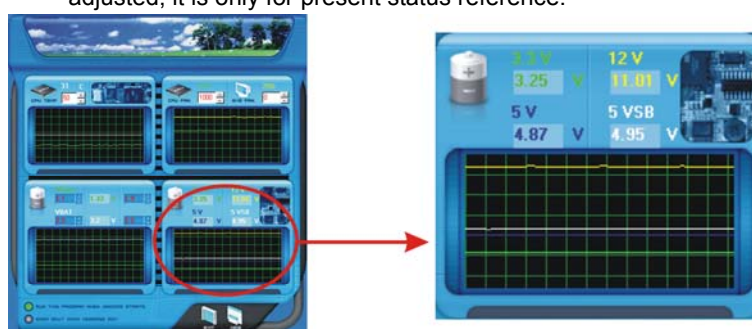
This item displays the CMOS battery voltage, represented by a light green line.

Users can set the upper and lower limit by adjusting  to monitor the status of battery voltage.

If battery voltage is higher or lower than the set value, the status line will change to a red warning line, and a warning sound will alert you. Also, the system tray icon  will change to .

Reference data

This column represents the status of power supply voltage and cannot be adjusted, it is only for present status reference.



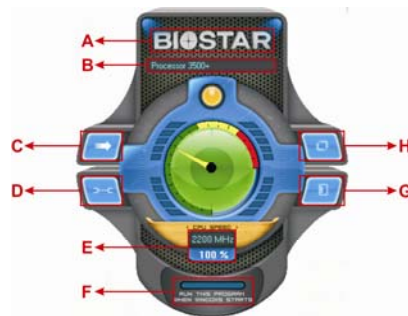
B. Overclocking Configurations

This diagram is designed for T-series Overclocking utility. Friendly interface and solid overclock features are the major concept of this utility.

Graphic 1 will appear when activating this utility.



Graphic 1



Graphic 2

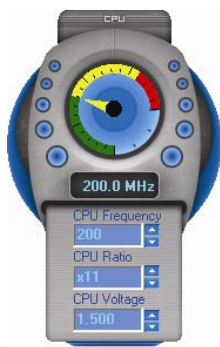
- A. Clicking on "Biostar" will lead you to the Biostar Homepage.
- B. This column shows the CPU speed information.
- C. Click on this button and the utility will pop-up 4 sub-screens (Please refers to Graphic 3).
- D. Click on this button to minimize this program to taskbar.
- E. This column shows present CPU speed and overclocking percentage.
- F. Clicking on this button will make the program start up as soon as the Windows starts up.
- G. Click on this button to exit this overclock utility.
- H. Click on this button to reset all the overclock features to default setting.


By adjusting the overclocking features in 4 sub-screens, users can tune the system performance to an optimal level.



Graphic 3

CPU Overclocking Settings:



By adjusting  can configure three items for CPU overclocking.

A. CPU Frequency

Range: 200MHz~450MHz.

Interval: 1MHz.

B. CPU Ratio

Range: 4~25.

Interval: 1.


C. CPU Voltage

Range: 0.8V~2.0V.

Interval: 0.0125V.

Memory Overclocking Settings:



By adjusting  can configure two items for Memory overclocking.

A. Memory Clock Frequency

Choices: 100, 133, 200, 266, 333, 400, 533, 667, 800.


B. Memory Voltage

Range: 1.8V~2.8V.

Interval: 0.1V.

AGP/PCI-Express Overclocking Setting:



By adjusting  can configure VGA card overclocking. And this function helps to increase VGA card performance.

Range: 100MHz~150MHz.

Interval: 1MHz.

PCI Overclocking Setting:



This diagram shows present PCI working status and helps to monitor PCI peripherals working status.

This item cannot be adjusted.

C. Smart Fan Function



When Smart Fan Function is activated, screens will pop-up to illustrate the fan speed information.

i. CPU Temperature:

Show current CPU temperature.

ii. CPU Fan speed:

Show current CPU Fan speed.

iii. System Fan speed:

Show current system Fan speed.

iv. Calibrate:

When changing CPU Fan or System Fan, click on this button to re-calibrate the Fan speed.



Note:

1. When Smart Fan Function activates for the first time, this calibrate function would auto-run to get upper and lower limitation of CPU Fan and System Fan.
2. When calibrating process is done, the calibrating window will auto-close, and the main screen will show new fan speed data.

v. Auto:

If the green indicator is lit up, the Smart Fan Function is “On” (Default Setting).

Click on this button again to close Smart Fan Function, and a screen as below would pop-up.

There will be pulling-meter besides the CPU Fan and System Fan, the CPU Fan and the System Fan speed can be adjusted by adjusting the Cursor Up or Down.

**vi. Program Tool Bar:****About:**

Click on this button to get program-related information.

**Minimize:**

Click on this button to minimize the program to system tray

**Exit:**

Click on this button to exit this program.

D. Live Update



When Live Update program is activated, a screen will pop up to illustrate BIOS related information.

i. Link to Internet:

Click on this button will link to Biostar website and BIOS file will be downloaded.

ii. Update BIOS:

Click on this button to run BIOS flashing process, and it's easy and safe.

iii. Backup BIOS:

Click on this button, and BIOS file will be saved into the user-selected folder.

iv. Clear CMOS:

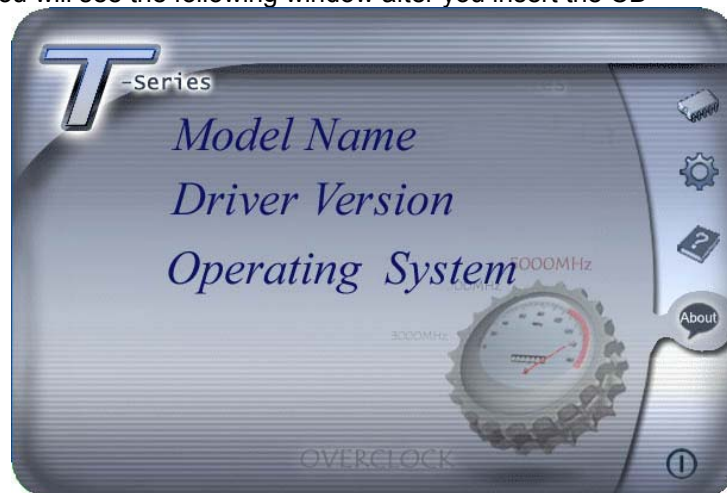
Click on this item will clear the CMOS Data. When carrying this job, the previous CMOS data would be cleared and returned to default setting.

CHAPTER 6: USEFUL HELP

6.1 DRIVER INSTALLATION NOTE

After you installed your operating system, please insert the Fully Setup Driver CD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the CD



The setup guide will auto detect your motherboard and operating system.

Note:

If this window didn't show up after you insert the Driver CD, please use file browser to locate and execute the file **SETUP.EXE** under your optical drive.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver CD. Click on the Manual icon to browse for available manual.

Note:

You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from
<http://www.adobe.com/products/acrobat/readstep2.html>

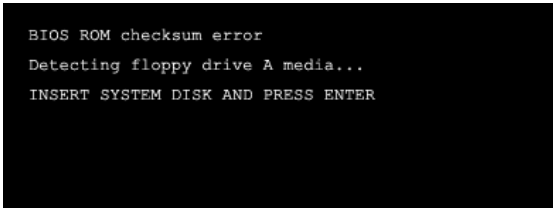
6.2 AWARD BIOS BEEP CODE

Beep Sound	Meaning
One long beep followed by two short beeps	Video card not found or video card memory bad
High-low siren sound	CPU overheated System will shut down automatically
One Short beep when system boot-up	No error found during POST
Long beeps every other second	No DRAM detected or install

6.3 EXTRA INFORMATION

A. BIOS Update

After you fail to update BIOS or BIOS is invaded by virus, the Boot-Block function will help to restore BIOS. If the following message is shown after boot-up the system, it means the BIOS contents are corrupted.

A screenshot of a black screen with white text. The text reads: "BIOS ROM checksum error", "Detecting floppy drive A media...", and "INSERT SYSTEM DISK AND PRESS ENTER".

```
BIOS ROM checksum error
Detecting floppy drive A media...
INSERT SYSTEM DISK AND PRESS ENTER
```

In this Case, please follow the procedure below to restore the BIOS:

1. Make a bootable floppy disk.
2. Download the Flash Utility "AWDFLASH.exe" from the Biostar website: www.biostar.com.tw
3. Confirm motherboard model and download the respectively BIOS from Biostar website.
4. Copy "AWDFLASH.exe" and respectively BIOS into floppy disk.
5. Insert the bootable disk into floppy drive and press Enter.
6. System will boot-up to DOS prompt.
7. Type "Awdflash xxxx.bf/sn/py/r" in DOS prompt.
(xxxx means BIOS name.)
8. System will update BIOS automatically and restart.
9. The BIOS has been recovered and will work properly.

B. CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
(See "Close CMOS Header: JCMOS1" section)
2. Wait for seconds.
3. Power on the system again.

6.4 TROUBLESHOOTING

Probable	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on keyboard does not turn on.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from hard disk drive, can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message says "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

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APPENDENCIES: SPEC IN OTHER LANGUAGE

GERMAN

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D Prozessoren mit bis zu 3,8 GHz Unterstützt Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D Prozessoren mit bis zu 3,8 GHz Unterstützt Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipsatz	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Super E/A	ITE 8718F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE	ITE 8718F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR2 DIMM-Steckplätze x 4 Jeder DIMM unterstützt 256/512MB / 1GB /2GB DDR2. Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 533 / 667 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.	DDR2 DIMM-Steckplätze x 4 Jeder DIMM unterstützt 256/512MB / 1GB /2GB DDR2. Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 533 / 667 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
IDE	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,
SATA II	Integrierter Serial ATA-Controller Datentransferrate bis zu 3Gb/s Konform mit der SATA-Spezifikation Version 2.0.	Integrierter Serial ATA-Controller Datentransferrate bis zu 3Gb/s Konform mit der SATA-Spezifikation Version 2.0.
LAN	Realtek RTL 8110SC RTL8100C (optional) 10 / 100 Mb/s und 1Gb/s Auto-Negotiation (Gigabit-Bandbreite nur beim RTL 8110SC) Halb-/ Vollduplex-Funktion	Realtek RTL 8110SC 10 / 100 Mb/s und 1Gb/s Auto-Negotiation Halb-/ Vollduplex-Funktion

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
HD	ALC883 / ALC861 (optional)		ALC883	
Audio-Unterstützung	8+2-Kanal-Audioausgabe Unterstützt Intel High-Definition Audio		8+2-Kanal-Audioausgabe Unterstützt Intel High-Definition Audio	
Steckplätze	PCI-Steckplatz	x3	PCI-Steckplatz	x3
	PCI Express x16 Steckplatz	x1	PCI Express x16 Steckplatz	x1
	PCI Express x4 Steckplatz	x1	PCI Express x4 Steckplatz	x1
	PCI Express x 1-Steckplatz	x1	PCI Express x 1-Steckplatz	x1
Onboard-Anschluss	Diskettenlaufwerkanschluss	x1	Diskettenlaufwerkanschluss	x1
	Druckeranschluss Anschluss	x1	Druckeranschluss Anschluss	x1
	IDE-Anschluss	x1	IDE-Anschluss	x1
	SATA-Anschluss	x6	SATA-Anschluss	x4
	Fronttafelanschluss	x1	Fronttafelanschluss	x1
	Front-Audioanschluss	x1	Front-Audioanschluss	x1
	CD-IN-Anschluss	x1	CD-IN-Anschluss	x1
	S/PDIF- Ausgangsanschluss	x1	S/PDIF- Ausgangsanschluss	x1
	S/PDIF Eingangsanschluss	x1	S/PDIF Eingangsanschluss	x1
	CPU-Lüfter-Sockel	x1	CPU-Lüfter-Sockel	x1
	System-Lüfter-Sockel	x2	System-Lüfter-Sockel	x2
	"Gehäuse offen"-Sockel	x1	"CMOS löschen"-Sockel	x1
	"CMOS löschen"-Sockel	x1	USB-Anschluss	x2
	USB-Anschluss	x2	Stromanschluss (24-polig)	x1
	Stromanschluss (24-polig)	x1	Stromanschluss (4-polig)	x1
	Stromanschluss (4-polig)	x1		
Rückseiten-E/A	PS/2-Tastatur	x1	PS/2-Tastatur	x1
	PS/2-Maus	x1	PS/2-Maus	x1
	Serieller Anschluss	x1	Serieller Anschluss	x1
	LAN-Anschluss	x1	LAN-Anschluss	x1
	USB-Anschluss	x6	USB-Anschluss	x6
	Audioanschluss	x6	Audioanschluss	x6
Platinengröße	220 mm (B) X 305 mm (L)		220 mm (B) X 305 mm (L)	
Sonderfunktionen	Unterstützt RAID 0 / 1 / 5 / 1+0			
OS-Unterstützung	Windows 2000 / XP Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.		Windows 2000 / XP Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.	

FRANCE

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
UC	LGA 775 Processeurs Intel Core2Duo / Pentium 4 / Pentium D / Celeron D jusqu'à 3,8 GHz Prend en charge les technologies Hyper-Threading / d'exécution de bit de désactivation / Intel SpeedStep® optimisée/ d'architecture Intel 64 / de mémoire étendue 64 / de virtualisation	LGA 775 Processeurs Intel Core2Duo / Pentium 4 / Pentium D / Celeron D jusqu'à 3,8 GHz Prend en charge les technologies Hyper-Threading / d'exécution de bit de désactivation / Intel SpeedStep® optimisée/ d'architecture Intel 64 / de mémoire étendue 64 / de virtualisation
Bus frontal	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipset	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Super E/S	ITE 8718F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches Initiatives de contrôle environnementales, Moniteur de matériel Contrôleur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE	ITE 8718F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches Initiatives de contrôle environnementales, Moniteur de matériel Contrôleur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE
Mémoire principale	Fentes DDR2 DIMM x 4 Chaque DIMM prend en charge des DDR2 de 256/512 Mo 1Go /2Go Capacité mémoire maximale de 8 Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 533 / 667 / 800 Les DIMM à registres et DIMM sans code correcteurs d'erreurs ne sont pas prises en charge	Fentes DDR2 DIMM x 4 Chaque DIMM prend en charge des DDR2 de 256/512 Mo 1Go /2Go Capacité mémoire maximale de 8 Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 533 / 667 / 800 Les DIMM à registres et DIMM sans code correcteurs d'erreurs ne sont pas prises en charge
IDE	VIA VT6410 Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,	VIA VT6410 Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,
SATA SATA II	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0
LAN	Realtek RTL 8110SC RTL8100C (optional) 10 / 100 Mb/s et 1 Gb/s négociation automatique (La bande passante Gigabit est pour le RTL8110SC uniquement) Half / Full duplex capability	Realtek RTL 8110SC 10 / 100 Mb/s et 1 Gb/s négociation automatique Half / Full duplex capability

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
Prise en charge audio HD	ALC883 / ALC861 (en option) Sortie audio à 8+2 voies Prise en charge de l'audio haute définition Intel		ALC883 Sortie audio à 8+2 voies Prise en charge de l'audio haute définition Intel	
Fentes	Fente PCI	x3	Fente PCI	x3
	Slot PCI Express x16	x1	Slot PCI Express x16	x1
	Slot PCI Express x 4	x1	Slot PCI Express x 4	x1
	Slot PCI Express x 1	x1	Slot PCI Express x 1	x1
Connecteur embarqué	Connecteur de disquette	x1	Connecteur de disquette	x1
	Connecteur de Port d'imprimante	x1	Connecteur de Port d'imprimante	x1
	Connecteur IDE	x1	Connecteur IDE	x1
	Connecteur SATA	x6	Connecteur SATA	x4
	Connecteur du panneau avant	x1	Connecteur du panneau avant	x1
	Connecteur Audio du panneau avant	x1	Connecteur Audio du panneau avant	x1
	Connecteur d'entrée CD	x1	Connecteur d'entrée CD	x1
	Connecteur de sortie S/PDIF	x1	Connecteur de sortie S/PDIF	x1
	Connecteur d'entrée S/PDIF	x1	Connecteur d'entrée S/PDIF	x1
	Embase de ventilateur UC	x1	Embase de ventilateur UC	x1
	Embase de ventilateur système	x2	Embase de ventilateur système	x2
	Embase d'ouverture de châssis	x1	Embase d'effacement CMOS	x1
	Embase d'effacement CMOS	x1	Connecteur USB	x2
	Connecteur USB	x2	Connecteur d'alimentation (24 broches)	x1
	Connecteur d'alimentation (24 broches)	x1	Connecteur d'alimentation (4 broches)	x1
	Connecteur d'alimentation (4 broches)	x1		
E/S du panneau arrière	Clavier PS/2	x1	Clavier PS/2	x1
	Souris PS/2	x1	Souris PS/2	x1
	Port série	x1	Port série	x1
	Port LAN	x1	Port LAN	x1
	Port USB	x6	Port USB	x6
	Fiche audio	x6	Fiche audio	x6
Dimensions de la carte	220 mm (l) X 305 mm (H)		220 mm (l) X 305 mm (H)	
Fonctionnalités spéciales	Prise en charge RAID 0 / 1 / 5 / 1+0			
Support SE	Windows 2000 / XP Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.		Windows 2000 / XP Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.	

ITALIAN

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU	LGA 775 Processore Intel Core2Duo / Pentium 4 / Pentium D / Celeron D fino a 3.8 GHz Supporto di Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Architettura Intel 64 / Tecnologia Extended Memory 64 / Tecnologia Virtualization	LGA 775 Processore Intel Core2Duo / Pentium 4 / Pentium D / Celeron D fino a 3.8 GHz Supporto di Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Architettura Intel 64 / Tecnologia Extended Memory 64 / Tecnologia Virtualization
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipset	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Super I/O	ITE 8718F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count) Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller velocità ventolina Funzione "Smart Guardian" di ITE	ITE 8718F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count) Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller velocità ventolina Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR2 x 4 Ciascun DIMM supporta DDR2 256/512MB / 1GB / 2GB Capacità massima della memoria 8GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 533 / 667 / 800 DIMM registrati e DIMM ECC sono supportati	Alloggi DIMM DDR2 x 4 Ciascun DIMM supporta DDR2 256/512MB / 1GB / 2GB Capacità massima della memoria 8GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 533 / 667 / 800 DIMM registrati e DIMM ECC sono supportati
IDE	VIA VT6410 Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4	VIA VT6410 Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4
SATA II	Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.	Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.
LAN	Realtek RTL 8110SC RTL8100C (optional) Negoziante automatica 10 / 100 Mb/s e 1Gb/s (la larghezza di banda Gigabit è solo per RTL 8110SC) Capacità Half / Full Duplex	Realtek RTL 8110SC Negoziante automatica 10 / 100 Mb/s e 1Gb/s Capacità Half / Full Duplex

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
Supporto audio HD	ALC883 / ALC861 (optional) Uscita audio 8+2 canali Supporto audio High-Definition (HD)		ALC883 Uscita audio 8+2 canali Supporto audio High-Definition (HD)	
Alloggi	Alloggio PCI	x3	Alloggio PCI	x3
	Alloggio PCI Express x16	x1	Alloggio PCI Express x16	x1
	Alloggio PCI Express x4	x1	Alloggio PCI Express x4	x1
	Alloggio PCI Express x1	x1	Alloggio PCI Express x1	x1
Connettori su scheda	Connettore floppy	x1	Connettore floppy	x1
	Connettore Porta stampante	x1	Connettore Porta stampante	x1
	Connettore IDE	x1	Connettore IDE	x1
	Connettore SATA	x6	Connettore SATA	x4
	Connettore pannello frontale	x1	Connettore pannello frontale	x1
	Connettore audio frontale	x1	Connettore audio frontale	x1
	Connettore CD-in	x1	Connettore CD-in	x1
	Connettore output SPDIF	x1	Connettore output SPDIF	x1
	Connettore input S/PDIF	x1	Connettore input S/PDIF	x1
	Collettore ventolina CPU	x1	Collettore ventolina CPU	x1
	Collettore ventolina sistema	x2	Collettore ventolina sistema	x2
	Collettore apertura telaio	x1	Collettore cancellazione CMOS	x1
	Collettore cancellazione CMOS	x1	Connettore USB	x2
	Connettore USB	x2	Connettore alimentazione	x1
	Connettore alimentazione	x1	(24 pin)	
	(24 pin)		Connettore alimentazione	x1
	Connettore alimentazione	x1	(4 pin)	
	(4 pin)			
I/O pannello posteriore	Tastiera PS/2	x1	Tastiera PS/2	x1
	Mouse PS/2	x1	Mouse PS/2	x1
	Porta seriale	x1	Porta seriale	x1
	Porta LAN	x1	Porta LAN	x1
	Porta USB	x6	Porta USB	x6
	Connettore audio	x6	Connettore audio	x6
Dimensioni scheda	220 mm (larghezza) x 305 mm (altezza)		220 mm (larghezza) x 305 mm (altezza)	
Caratteristiche speciali	Supporto RAID 0 / 1 / 5 / 1+0			
Sistemi operativi supportati	Windows 2000 / XP Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.		Windows 2000 / XP Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.	

SPANISH

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU	LGA 775 Procesador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D hasta 3,8 GHz Admite Hyper-Threading / Bit de deshabilitación de ejecución / Intel SpeedStep® Mejorado / Intel Architecture-64 / Tecnología Extended Memory 64 / Tecnología de virtualización	LGA 775 Procesador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D hasta 3,8 GHz Admite Hyper-Threading / Bit de deshabilitación de ejecución / Intel SpeedStep® Mejorado / Intel Architecture-64 / Tecnología Extended Memory 64 / Tecnología de virtualización
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Conjunto de chips	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Súper E/S	ITE 8718F Le ofrece las funcionalidades heredadas de uso más común Súper E/S. Interfaz de cuenta Low Pin Iniciativas de control de entorno, Monitor hardware Controlador de velocidad de ventilador Función "Guardia inteligente" de ITE	ITE 8718F Le ofrece las funcionalidades heredadas de uso más común Súper E/S. Interfaz de cuenta Low Pin Iniciativas de control de entorno, Monitor hardware Controlador de velocidad de ventilador Función "Guardia inteligente" de ITE
Memoria principal	Ranuras DIMM DDR2 x 4 Cada DIMM admite DDR de 256/512MB / 1GB / 2GB Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 de canal Doble Admite DDR2 de 533 / 667 / 800 No admite DIMM registrados o DIMM no compatibles con ECC	Ranuras DIMM DDR2 x 4 Cada DIMM admite DDR de 256/512MB / 1GB / 2GB Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 de canal Doble Admite DDR2 de 533 / 667 / 800 No admite DIMM registrados o DIMM no compatibles con ECC
IDE	VIA VT6410 Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4,	VIA VT6410 Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4,
SATA II	Controlador ATA Serie Integrado Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0.	Controlador ATA Serie Integrado Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0.
Red Local	Realtek RTL 8110SC RTL8100C (opcional) Negociación de 10 / 100 Mb/s y 1 Gb/s (el ancho de banda Gigabit es únicamente para RTL 8110SC) Funciones Half / Full dúplex	Realtek RTL 8110SC Negociación de 10 / 100 Mb/s y 1 Gb/s Funciones Half / Full dúplex

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
Soporte de sonido HD	ALC883 / ALC861 (opcional) Salida de sonido de 8+2 canales Soporte de sonido Intel de Alta Definición		ALC883 Salida de sonido de 8+2 canales Soporte de sonido Intel de Alta Definición	
Ranuras	Ranura PCI	X3	Ranura PCI	X3
	Ranura PCI Express x16	X1	Ranura PCI Express x16	X1
	Ranura PCI Express x4	X1	Ranura PCI Express x4	X1
	Ranura PCI express x 1	X1	Ranura PCI express x 1	X1
Conectores en placa	Conector disco flexible	X1	Conector disco flexible	X1
	Conector Puerto de impresora	X1	Conector Puerto de impresora	X1
	Conector IDE	X1	Conector IDE	X1
	Conector SATA	X6	Conector SATA	X4
	Conector de panel frontal	X1	Conector de panel frontal	X1
	Conector de sonido frontal	X1	Conector de sonido frontal	X1
	Conector de entrada de CD	X1	Conector de entrada de CD	X1
	Conector de salida S/PDIF	X1	Conector de salida S/PDIF	X1
	Cabecera de ventilador de CPU	X1	Cabecera de ventilador de CPU	X1
	Cabecera de ventilador de sistema	X2	Cabecera de ventilador de sistema	X2
	Cabecera de chasis abierto	X1	Cabecera de borrado de CMOS	X1
	Cabecera de borrado de CMOS	X1	Conector USB	X2
	Conector USB	X2	Conector de alimentación	X1
	Conector de alimentación (24 patillas)	X1	(24 patillas)	
	Conector de alimentación (4 patillas)	X1	Conector de alimentación (4 patillas)	X1
Panel trasero de E/S	Teclado PS/2	X1	Teclado PS/2	X1
	Ratón PS/2	X1	Ratón PS/2	X1
	Puerto serie	X1	Puerto serie	X1
	Puerto de red local	X1	Puerto de red local	X1
	Puerto USB	X6	Puerto USB	X6
	Conector de sonido	X6	Conector de sonido	X6
Tamaño de la placa	220 mm. (A) X 305 Mm. (H)		220 mm. (A) X 305 Mm. (H)	
Funciones especiales	Admite RAID 0 / 1 / 5 / 1+0			
Soporte de sistema operativo	Windows 2000 / XP Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.		Windows 2000 / XP Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.	

PORTUGUESE

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU	LGA 775 Processador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D até 3,8 GHz Suporta as tecnologias Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture -64 / Extended Memory 64 / Virtualization	LGA 775 Processador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D até 3,8 GHz Suporta as tecnologias Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture -64 / Extended Memory 64 / Virtualization
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipset	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Especificação Super I/O	ITE 8718F Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O. Interface LPC (Low Pin Count). Iniciativas para controlo do ambiente Monitorização do hardware Controlador da velocidade da ventoinha Função "Smart Guardian" da ITE	ITE 8718F Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O. Interface LPC (Low Pin Count). Iniciativas para controlo do ambiente Monitorização do hardware Controlador da velocidade da ventoinha Função "Smart Guardian" da ITE
Memória principal	Ranuras DIMM DDR2 x 4 Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB / 1 GB / 2GB Capacidade máxima de memória: 8 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 533 / 667 / 800 Os módulos DIMM registados e os DIMM ECC são suportados	Ranuras DIMM DDR2 x 4 Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB / 1 GB / 2GB Capacidade máxima de memória: 8 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 533 / 667 / 800 Os módulos DIMM registados e os DIMM ECC são suportados
IDE	VIA VT6410 Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,	VIA VT6410 Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,
SATA II	Controlador Serial ATA integrado Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.	Controlador Serial ATA integrado Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.
LAN	Realtek RTL 8110SC RTL8100C(opcional) Auto negociação de 10 / 100 Mb/s e 1Gb/s (a largura de banda Gigabit refere-se apenas à especificação RTL 8110SC) Capacidade semi/full-duplex	Realtek RTL 8110SC Auto negociação de 10 / 100 Mb/s e 1Gb/s Capacidade semi/full-duplex

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
Suporte para áudio de alta definição	ALC883 / ALC861(opcional)		ALC883	
	Saída de áudio de 8+2 canais		Saída de áudio de 8+2 canais	
	Suporta a especificação Intel High-Definition Audio		Suporta a especificação Intel High-Definition Audio	
Ranhuras	Ranhura PCI	x3	Ranhura PCI	x3
	Ranhura PCI Express x16	x1	Ranhura PCI Express x16	x1
	Ranhura PCI Express x4	x1	Ranhura PCI Express x4	x1
	Ranhura PCI Express x 1	x1	Ranhura PCI Express x 1	x1
Conectores na placa	Conector da unidade de disquetes	x1	Conector da unidade de disquetes	x1
	Conector da para impressora	x1	Conector da para impressora	x1
	Conector IDE	x1	Conector IDE	x1
	Conector SATA	x6	Conector SATA	x4
	Conector do painel frontal	x1	Conector do painel frontal	x1
	Conector de áudio frontal	x1	Conector de áudio frontal	x1
	Conector para entrada de CDs	x1	Conector para entrada de CDs	x1
	Conector de saída S/PDIF	x1	Conector de saída S/PDIF	x1
	Conector de entrada S/PDIF	x1	Conector de entrada S/PDIF	x1
	Conector da ventoinha da CPU	x1	Conector da ventoinha da CPU	x1
	Conector da ventoinha do sistema	x2	Conector da ventoinha do sistema	x2
	Conector para detecção da abertura do chassis	x1	Conector para limpeza do CMOS	x1
	Conector para limpeza do CMOS	x1	Conector USB	x2
	Conector USB	x2	Conector de alimentação (24 pinos)	x1
	Conector de alimentação (24 pinos)	x1	Conector de alimentação (4 pinos)	x1
	Conector de alimentação (4 pinos)	x1		
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	Teclado PS/2	x1
	Rato PS/2	x1	Rato PS/2	x1
	Porta série	x1	Porta série	x1
	Porta LAN	x1	Porta LAN	x1
	Porta USB	x6	Porta USB	x6
	Tomada de áudio	x6	Tomada de áudio	x6
Tamanho da placa	220 mm (L) X 305 mm (A)		220 mm (L) X 305 mm (A)	
Características especiais	Suporta as funções RAID 0 / 1 / 5 / 1+0			
Sistemas operativos suportados	Windows 2000 / XP A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.		Windows 2000 / XP A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.	

POLISH

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
Procesor	LGA 775 Procesor Intel Core2Duo / Pentium 4 / Pentium D / Celeron D do 3,8 GHz Obsługa Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	LGA 775 Procesor Intel Core2Duo / Pentium 4 / Pentium D / Celeron D do 3,8 GHz Obsługa Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
Chipset	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Pamięć główna	Gniazda DDR2 DIMM x 4 Każde gniazdo DIMM obsługuje moduły 256/512MB /1GB / 2GB DDR2 Maks. wielkość pamięci 8GB Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 533 / 667 / 800 Brak obsługi Registered DIMM oraz ECC DIMM	Gniazda DDR2 DIMM x 4 Każde gniazdo DIMM obsługuje moduły 256/512MB /1GB / 2GB DDR2 Maks. wielkość pamięci 8GB Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 533 / 667 / 800 Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE 8718F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count Funkcje kontroli warunków pracy, Monitor H/W Kontroler prędkości wentylatora Funkcja ITE "Smart Guardian"	ITE 8718F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count Funkcje kontroli warunków pracy, Monitor H/W Kontroler prędkości wentylatora Funkcja ITE "Smart Guardian"
IDE	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,
SATA II	Zintegrowany kontroler Serial ATA Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.	Zintegrowany kontroler Serial ATA Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	Realtek RTL 8110SC RTL8100C(opcja) 10 / 100 Mb/s oraz 1Gb/s z automatyczną negocjacją szybkości (Pasma gigabitowe wyłącznie dla RTL 8110SC)	Realtek RTL 8110SC 10 / 100 Mb/s oraz 1Gb/s z automatyczną negocjacją szybkości
Obsługa audio HD	ALC883 / ALC861(opcja) 8+2 kanałowe wyjście audio Obsługa Intel High-Definition Audio	ALC883 8+2 kanałowe wyjście audio Obsługa Intel High-Definition Audio

TForce P965 Deluxe/TForce 965PT

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
Gniazda	Gniazdo PCI x3	Gniazdo PCI x3
	Gniazdo PCI Express x16 x1	Gniazdo PCI Express x16 x1
	Gniazdo PCI Express x 4 x1	Gniazdo PCI Express x 4 x1
	Gniazdo PCI Express x 1 x1	Gniazdo PCI Express x 1 x1
Złącza wbudowane	Złącze napędu dyskietek x1	Złącze napędu dyskietek x1
	Złącze Port drukarki x1	Złącze Port drukarki x1
	Złącze IDE x1	Złącze IDE x1
	Złącze SATA x6	Złącze SATA x4
	Złącze panela przedniego x1	Złącze panela przedniego x1
	Przednie złącze audio x1	Przednie złącze audio x1
	Złącze wejścia CD x1	Złącze wejścia CD x1
	Złącze wyjścia S/PDIF x1	Złącze wyjścia S/PDIF x1
	Złącze wejścia S/PDIF x1	Złącze wejścia S/PDIF x1
	Złącze główkowe wentylatora procesora x1	Złącze główkowe wentylatora procesora x1
	Złącze główkowe wentylatora systemowego x2	Złącze główkowe wentylatora systemowego x2
	Złącze główkowe otwarcia obudowy x1	Złącze główkowe kasowania CMOS x1
	Złącze główkowe kasowania CMOS x1	Złącze USB x2
	Złącze USB x2	Złącze zasilania (24 pinowe) x1
	Złącze zasilania (24 pinowe) x1	Złącze zasilania (4 pinowe) x1
	Złącze zasilania (4 pinowe) x1	
Back Panel I/O	Klawiatura PS/2 x1	Klawiatura PS/2 x1
	Mysz PS/2 x1	Mysz PS/2 x1
	Port szeregowy x1	Port szeregowy x1
	Port LAN x1	Port LAN x1
	Port USB x6	Port USB x6
	Gniazdo audio x6	Gniazdo audio x6
Wymiary płyty	220 mm (S) X 305 mm (W)	220 mm (S) X 305 mm (W)
Funkcje specjalne	Obsługa RAID 0 / 1 / 5 / 1+0	
Obsługa systemu operacyjnego	Windows 2000 / XP Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.	Windows 2000 / XP Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

RUSSIAN

	<i>TForce P965 Deluxe</i>	<i>TForce 965PT</i>
CPU (центральный процессор)	LGA 775 Процессор Intel Core2Duo / Pentium 4 / Pentium D / Celeron D до 3.8 ГГц Поддержка технологий Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / технологии виртуализация	LGA 775 Процессор Intel Core2Duo / Pentium 4 / Pentium D / Celeron D до 3.8 ГГц Поддержка технологий Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / технологии виртуализация
FSB	533 / 800 / 1066 МГц	533 / 800 / 1066 МГц
Набор микросхем	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
Основная память	Слоты DDR2 DIMM x 4 Каждый модуль DIMM поддерживает 256/512МБ / 1ГБ / 2ГБ DDR2 Максимальная ёмкость памяти 8 ГБ Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 533 / 667 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM	Слоты DDR2 DIMM x 4 Каждый модуль DIMM поддерживает 256/512МБ / 1ГБ / 2ГБ DDR2 Максимальная ёмкость памяти 8 ГБ Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 533 / 667 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE 8718F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости Функция ITE "Smart Guardian" (Интеллектуальная защита)	ITE 8718F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости Функция ITE "Smart Guardian" (Интеллектуальная защита)
IDE	VIA VT6410 Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,	VIA VT6410 Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,
SATA II	Встроенное последовательное устройство управления ATA скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.	Встроенное последовательное устройство управления ATA скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.
Локальная сеть	Realtek RTL 8110SC RTL8100C (дополнительно) Автоматическое согласование 10 / 100 Мб/с и 1Гб/с (гигабитная пропускная способность только для гигабитного физического уровня) Частичная / полная дуплексная способность	Realtek RTL 8110SC Автоматическое согласование 10 / 100 Мб/с и 1Гб/с Частичная / полная дуплексная способность
Звуковая поддержка	ALC883 / ALC861 (дополнительно) Восьмиканальный звуковой выход	ALC883 Восьмиканальный звуковой выход

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
жесткого диска	Звуковая поддержка Intel High-Definition		Звуковая поддержка Intel High-Definition	
Слоты	Слот PCI	x3	Слот PCI	x3
	Слот PCI Express x16	x1	Слот PCI Express x16	x1
	Слот PCI Express x 4	x1	Слот PCI Express x 4	x1
	Слот PCI Express x 1	x1	Слот PCI Express x 1	x1
Встроенный разъем	Разъем HГМД	x1	Разъем HГМД	x1
	Разъем Порт подключения принтера	x1	Разъем Порт подключения принтера	x1
	Разъем IDE	x1	Разъем IDE	x1
	Разъем SATA	x6	Разъем SATA	x4
	Разъем на лицевой панели	x1	Разъем на лицевой панели	x1
	Входной звуковой разъем	x1	Входной звуковой разъем	x1
	Разъем ввода для CD	x1	Разъем ввода для CD	x1
	Разъем вывода для S/PDIF	x1	Разъем вывода для S/PDIF	x1
	Разъем ввода для S/PDIF	x1	Разъем ввода для S/PDIF	x1
	Контактирующее приспособление вентилятора центрального процессора	x1	Контактирующее приспособление вентилятора центрального процессора	x1
	Контактирующее приспособление вентилятора системы	x2	Контактирующее приспособление вентилятора системы	x2
	Шасси открытого контактирующего приспособления	x1	Открытое контактирующее приспособление CMOS	x1
	Открытое контактирующее приспособление CMOS	x1	USB-разъем	x2
	USB-разъем	x2	Разъем питания (24 вывод)	x1
	Разъем питания (24 вывод)	x1	Разъем питания (4 вывод)	x1
	Разъем питания (4 вывод)	x1		
Задняя панель средств ввода-вывода	Клавиатура PS/2	x1	Клавиатура PS/2	x1
	Мышь PS/2	x1	Мышь PS/2	x1
	Последовательный порт	x1	Последовательный порт	x1
	Порт LAN	x1	Порт LAN	x1
	USB-порт	x6	USB-порт	x6
Размер панели	Гнездо для подключения наушников	x6	Гнездо для подключения наушников	x6
Специальные технические характеристики	Поддержка RAID 0 / 1 / 5 / 1+0			
Поддержка OS	Windows 2000 / XP Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.		Windows 2000 / XP Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.	

ARABIC

<i>TForce 965PT</i>	<i>TForce P965 Deluxe</i>	
LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D يتردد يصل إلى 3.8 جيجا هرتز Hyper-Threading / Execute Disable Bit / تدعم تقنيات Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D يتردد يصل إلى 3.8 جيجا هرتز Hyper-Threading / Execute Disable Bit / تدعم تقنيات Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	وحدة المعالجة المركزية
ميغا هرتز 533 / 800 / 1066 تردد	ميغا هرتز 533 / 800 / 1066 تردد	النقل الأممي الجانبي
Intel P965 Intel ICH8	Intel P965 Intel ICH8R	مجموعة الشرائح
عدد 4 DDR2 DIMM ميغا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل فتحة بليت 2 و بليت 1 جيجا بليت سعة ذاكرة قصوى 8 جيجا بليت مزودة للفتحة DDR2 وحدة ذاكرة سعات 800 / 667 / 533 ميغا بليت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	عدد 4 DDR2 DIMM ميغا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل فتحة بليت 2 و بليت 1 جيجا بليت سعة ذاكرة قصوى 8 جيجا بليت مزودة للفتحة DDR2 وحدة ذاكرة سعات 800 / 667 / 533 ميغا بليت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	الذاكرة الرئيسية
ITE 8718F الأكثر استخداماً، Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفة	ITE 8718F الأكثر استخداماً، Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفة	Super I/O
VIA VT6410 متحكم IDE Ultra DMA 33 / 66 / 100 / 133 وضع رئيسي PIO Mode 0~4 دعم وضع	VIA VT6410 متحكم IDE Ultra DMA 33 / 66 / 100 / 133 وضع رئيسي PIO Mode 0~4 دعم وضع	منفذ IDE
متكامل Serial ATA متحكم نقل البيانات بسرعات تصل إلى 3 جيجابت/ثانية. 2.0 الإصدار SATA مطابقة لمواصفات	متكامل Serial ATA متحكم نقل البيانات بسرعات تصل إلى 3 جيجابت/ثانية. 2.0 الإصدار SATA مطابقة لمواصفات	SATA II
Realtek RTL 8110SC تقويض تلقائي 100/10 ميغا بليت / ثنائية و 1 جيجا بت/ثانية إمكانية النقل المزدوج الكامل/النصفي	Realtek RTL 8110SC (اختياري) RTL8100C تقويض تلقائي 100/10 ميغا بليت / ثنائية و 1 جيجا بت/ثانية (النطاق الترددي الجيجابت مقصور فقط على إمكانية النقل المزدوج الكامل/النصفي	شبكة داخلية

TForce P965 Deluxe/TForce 965PT

TForce 965PT		TForce P965 Deluxe		
ALC883 2+8 قنوات لخرج الصوت Intel تدعم تقنية الصوت علي التعريف من		(اختياري) ALC883 / ALC861 2+8 قنوات لخرج الصوت Intel تدعم تقنية الصوت علي التعريف من		دعم الصوت علي التعريف
عدد 3	فتحة PCI	عدد 3	فتحة PCI	الفتحات
عدد 1	فتحة PCI Express x16	عدد 1	فتحة PCI Express x16	
عدد 1	فتحة PCI Express x4	عدد 1	فتحة PCI Express x4	
عدد 1	فتحة PCI Express x1	عدد 1	فتحة PCI Express x1	
عدد 1	منفذ محرك أقراص مرنة	عدد 1	منفذ محرك أقراص مرنة	المنافذ على سطح اللوحة
عدد 1	منفذ طباعة	عدد 1	منفذ طباعة	
عدد 1	منفذ IDE	عدد 1	منفذ IDE	
عدد 4	منفذ SATA	عدد 6	منفذ SATA	
عدد 1	منفذ اللوحة الأمامية	عدد 1	منفذ اللوحة الأمامية	
عدد 1	منفذ الصوت الأمامي	عدد 1	منفذ الصوت الأمامي	
عدد 1	منفذ CD-IN	عدد 1	منفذ CD-IN	
عدد 1	منفذ خرج S/PDIF	عدد 1	منفذ خرج S/PDIF	
عدد 1	منفذ دخل S/PDIF	عدد 1	منفذ دخل S/PDIF	
عدد 1	وصلة مروحة وحدة المعالجة المركزية	عدد 1	وصلة مروحة وحدة المعالجة المركزية	
عدد 2	وصلة مروحة النظام	عدد 2	وصلة مروحة النظام	
عدد 1	وصلة مسح CMOS	عدد 1	وصلة فتح الهيكل	
عدد 2	منفذ USB	عدد 1	وصلة مسح CMOS	
عدد 1	منفذ توصيل الطاقة (24 دبوس)	عدد 2	منفذ USB	
عدد 1	منفذ توصيل الطاقة (4 دبائيس)	عدد 1	منفذ توصيل الطاقة (24 دبوس)	
		عدد 1	منفذ توصيل الطاقة (4 دبائيس)	
عدد 1	لوحة مفاتيح PS/2	عدد 1	لوحة مفاتيح PS/2	منفذ دخل/خرج اللوحة الخلفية
عدد 1	مؤوس PS/2	عدد 1	مؤوس PS/2	
عدد 1	منفذ تسلسلي	عدد 1	منفذ تسلسلي	
عدد 1	منفذ شبكة اتصال محلية	عدد 1	منفذ شبكة اتصال محلية	
عدد 6	منافذ USB	عدد 6	منافذ USB	
عدد 6	مقيس صوت	عدد 6	مقيس صوت	
		RAID 0 / 1 / 5 / 1+0 دعم تقنية		مزايا خاصة
220 مم (عرض) X 305 مم (ارتفاع)		220 مم (عرض) X 305 مم (ارتفاع)		حجم اللوحة
Windows 2000 / XP بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostar تحتفظ بدون إخطار.		Windows 2000 / XP بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostar تحتفظ بدون إخطار.		دعم أنظمة التشغيل

JAPANESE

	TForce P965 Deluxe	TForce 965PT
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D processor up to 3.8 GHz Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technologyをサポート します	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D processor up to 3.8 GHz Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technologyをサポート します
FSB	533 / 800 / 1066 MHz	533 / 800 / 1066 MHz
チップセット	Intel P965 Intel ICH8R	Intel P965 Intel ICH8
メインメモリ	DDR2 DIMMスロット x 4 各DIMMは 256/512MB/1GB/2GB DDR2をサポート 最大メモリ容量 8GB デュアル チャンネルモードDDR2 メモリモジュール DDR2 533 / 667 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません	DDR2 DIMMスロット x 4 各DIMMは 256/512MB/1GB/2GB DDR2をサポート 最大メモリ容量 8GB デュアル チャンネルモードDDR2 メモリモジュール DDR2 533 / 667 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません
Super I/O	ITE 8718F もっとも一般に使用されるレガシーSuper I/O機能を 採用しています。 低ピンカウントインターフェイス 環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能	ITE 8718F もっとも一般に使用されるレガシーSuper I/O機能を 採用しています。 低ピンカウントインターフェイス 環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能
IDE	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、	VIA VT6410 Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、
SATA II	統合シリアルATAコントローラ 最高3 Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。	統合シリアルATAコントローラ 最高3 Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。
LAN	Realtek RTL 8110SC RTL8100C(オプション) 10 / 100 Mb/秒および1Gb/秒のオートネゴシエー ション (Gigabitバンド幅は RTL 8110SC 専用です)	Realtek RTL 8110SC 10 / 100 Mb/秒および1Gb/秒のオートネゴシエー ション 半/全二重機能

TForce P965 Deluxe/TForce 965PT

	TForce P965 Deluxe		TForce 965PT	
	半/全二重機能			
HDオーディオのサポート	ALC883 / ALC861(オプション) 8+2 チャンネルオーディオアウト Intel/ハイデフィニションオーディオのサポート		ALC883 8+2 チャンネルオーディオアウト Intel/ハイデフィニションオーディオのサポート	
スロット	PCIスロット	x3	PCIスロット	x3
	PCI Express x16スロット	x1	PCI Express x16スロット	x1
	PCI Express x 4スロット	x1	PCI Express x 4スロット	x1
	PCI Express x 1スロット	x1	PCI Express x 1スロット	x1
オンボードコネクタ	フロッピーコネクタ	x1	フロッピーコネクタ	x1
	プリンタポートコネクタ	x1	プリンタポートコネクタ	x1
	IDEコネクタ	x1	IDEコネクタ	x1
	SATAコネクタ	x6	SATAコネクタ	x4
	フロントパネルコネクタ	x1	フロントパネルコネクタ	x1
	フロントオーディオコネクタ	x1	フロントオーディオコネクタ	x1
	CDインコネクタ	x1	CDインコネクタ	x1
	S/PDIFアウトコネクタ	x1	S/PDIFアウトコネクタ	x1
	S/PDIFインコネクタ	x1	S/PDIFインコネクタ	x1
	CPUファンヘッダ	x1	CPUファンヘッダ	x1
	システムファンヘッダ	x2	システムファンヘッダ	x2
	シャーシオープンヘッダ	x1	CMOSクリアヘッダ	x1
	CMOSクリアヘッダ	x1	USBコネクタ	x2
	USBコネクタ	x2	電源コネクタ(24ピン)	x1
	電源コネクタ(24ピン)	x1	電源コネクタ(4ピン)	x1
	電源コネクタ(4ピン)	x1		
背面パネル I/O	PS/2キーボード	x1	PS/2キーボード	x1
	PS/2マウス	x1	PS/2マウス	x1
	シリアルポート	x1	シリアルポート	x1
	LANポート	x1	LANポート	x1
	USBポート	x6	USBポート	x6
	オーディオジャック	x6	オーディオジャック	x6
ボードサイズ	220 mm (幅) X 305 mm (高さ)		220 mm (幅) X 305 mm (高さ)	
特殊機能	RAID 0 / 1 / 5 / 1+0 のサポート			
OSサポート	Windows 2000 / XP Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。		Windows 2000 / XP Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。	

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